

09/AS7, 765

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1204bxd

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 JAN 27 Source of Registration (SR) information in REGISTRY updated  
and searchable  
NEWS 4 JAN 27 A new search aid, the Company Name Thesaurus, available in  
CA/CAPLUS  
NEWS 5 FEB 05 German (DE) application and patent publication number format  
changes  
NEWS 6 MAR 03 MEDLINE and L MEDLINE reloaded  
NEWS 7 MAR 03 MEDLINE file segment of TOXCENTER reloaded  
NEWS 8 MAR 03 FRANCEPAT now available on STN  
NEWS 9 MAR 29 Pharmaceutical Substances (PS) now available on STN  
NEWS 10 MAR 29 WPIFV now available on STN  
NEWS 11 MAR 29 No connect hour charges in WPIFV until May 1, 2004  
NEWS 12 MAR 29 New monthly current-awareness alert (SDI) frequency in RAPRA  
NEWS 13 APR 26 PROMT: New display field available  
NEWS 14 APR 26 IFIPAT/IFIUDB/IFICDB: New super search and display field  
available  
NEWS 15 APR 26 LITAlert now available on STN  
NEWS 16 APR 27 NLDB: New search and display fields available  
  
NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT  
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that  
specific topic.

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agreement. Please note that this agreement limits use to scientific  
research. Use for software development or design or implementation  
of commercial gateways or other similar uses is prohibited and may  
result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 16:34:23 ON 05 MAY 2004

=>

Uploading

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Do you want to switch to the Registry File?

Choice (Y/n):

Switching to the Registry File...

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST  | 2.52             | 2.52          |

FILE 'REGISTRY' ENTERED AT 16:41:25 ON 05 MAY 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7  
DICTIONARY FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

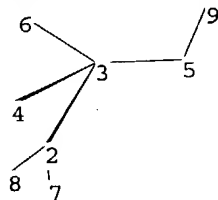
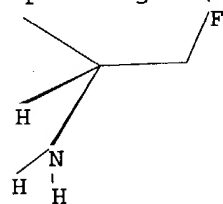
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\Program Files\Stnexp\Queries\09857465.str



chain nodes :

2 3 4 5 6 7 8 9

chain bonds :

2-3 2-7 2-8 3-4 3-5 3-6 5-9

exact/norm bonds :

2-3

exact bonds :

2-7 2-8 3-4 3-5 3-6 5-9

G1:H,F

Match level :

2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

Stereo Bonds:

3-2 (Single Wedge).

4-3 (Single Hash).

Stereo Chiral Centers:

3 (Parity=Don't Care)

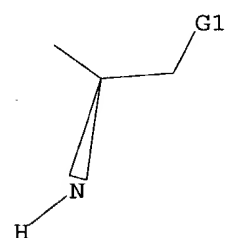
Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 3

L1 STRUCTURE UPLOADED

=> d query

L1 STR



G1 H,F

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 16:41:36 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 149342 TO ITERATE

0.7% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*

PROJECTED ITERATIONS: EXCEEDS 1000000  
PROJECTED ANSWERS: EXCEEDS 1000000

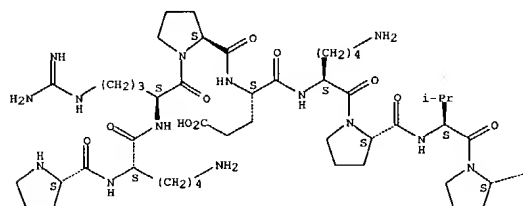
L2 50 SEA SSS SAM L1

=> d scan

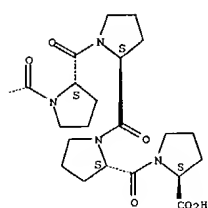
L2 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN L-Proline, L-prolyl-L-lysyl-L-arginyl-L-prolyl-L- $\alpha$ -glutamyl-L-lysyl-  
 L-prolyl-L-valyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl- (9Ci)  
 SQL 13  
 MF C68 H110 N18 O16

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

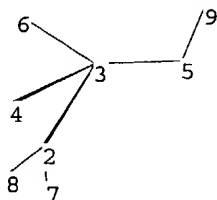
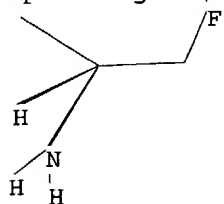


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=>

Uploading C:\Program Files\Stnexp\Queries\09857465.str



chain nodes :

2 3 4 5 6 7 8 9

chain bonds :

2-3 2-7 2-8 3-4 3-5 3-6 5-9

exact/norm bonds :

2-3

exact bonds :

2-7 2-8 3-4 3-5 3-6 5-9

G1:H,F

Match level :

2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

Stereo Bonds:

3-2 (Single Wedge).

4-3 (Single Hash).

Stereo Chiral Centers:

3 (Parity=Don't Care)

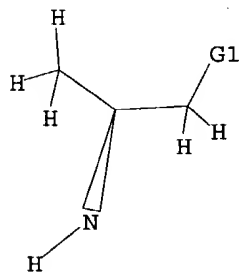
Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 3

L3 STRUCTURE UPLOADED

=> d query

L3 STR



G1 H, F

Structure attributes must be viewed using STN Express query preparation.

=> s l3

SAMPLE SEARCH INITIATED 16:42:23 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 149342 TO ITERATE

0.7% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.02

6 ANSWERS

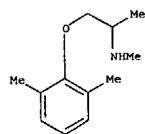
FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: EXCEEDS 1000000  
PROJECTED ANSWERS: EXCEEDS 16126

L4 6 SEA SSS SAM L3

=> d scan

L4 6 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
IN 2-Propanamine, 1-(2,6-dimethylphenoxy)-N-methyl-, (-)- (9CI)  
MF C12 H19 N O  
CI COM

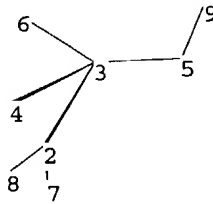
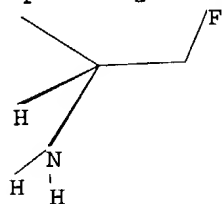
Rotation (-).



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=>  
 Uploading C:\Program Files\Stnexp\Queries\09857465.str



chain nodes :  
 2 3 4 5 6 7 8 9  
 chain bonds :  
 2-3 2-7 2-8 3-4 3-5 3-6 5-9  
 exact/norm bonds :  
 2-3  
 exact bonds :  
 2-7 2-8 3-4 3-5 3-6 5-9

G1:H,F

Match level :  
 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

Stereo Bonds:

3-2 (Single Wedge).  
 4-3 (Single Hash).

Stereo Chiral Centers:

3 (Parity=Don't Care)

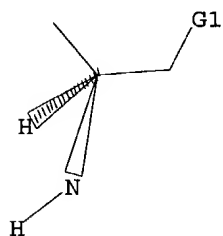
Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 3

L5 STRUCTURE UPLOADED

=> d query

L5 STR



G1 H,F

Structure attributes must be viewed using STN Express query preparation.



=> s 15  
SAMPLE SEARCH INITIATED 16:46:49 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 149342 TO ITERATE

0.7% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: EXCEEDS 1000000  
PROJECTED ANSWERS: EXCEEDS 1000000

L6 50 SEA SSS SAM L5

=>  
Uploading C:\Program Files\Stnexp\Queries\09857465.str



chain nodes :  
2 3 4 5 6 7 8 9  
chain bonds :  
2-3 2-7 2-8 3-4 3-5 3-6 5-9  
exact/norm bonds :  
2-3  
exact bonds :  
2-7 2-8 3-4 3-5 3-6 5-9

G1:H,F

Match level :  
2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

Stereo Bonds:

3-2 (Single Wedge).  
4-3 (Single Hash).

Stereo Chiral Centers:

3 (Parity=Don't Care)

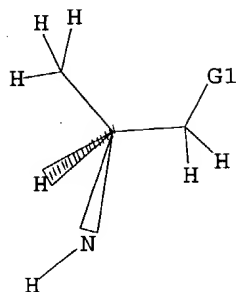
Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 3

L7 STRUCTURE UPLOADED

=> d query

L7 STR



G1 H,F

Structure attributes must be viewed using STN Express query preparation.

=> s 17

SAMPLE SEARCH INITIATED 16:47:25 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 149342 TO ITERATE

0.7% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

4 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: EXCEEDS 1000000  
PROJECTED ANSWERS: EXCEEDS 10481

L8 4 SEA SSS SAM L7

=> s 17

SAMPLE SEARCH INITIATED 16:47:34 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 149342 TO ITERATE

0.7% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

4 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: EXCEEDS 1000000  
PROJECTED ANSWERS: EXCEEDS 10481

L9 4 SEA SSS SAM L7

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

4.20

6.72

FILE 'CAPLUS' ENTERED AT 16:47:42 ON 05 MAY 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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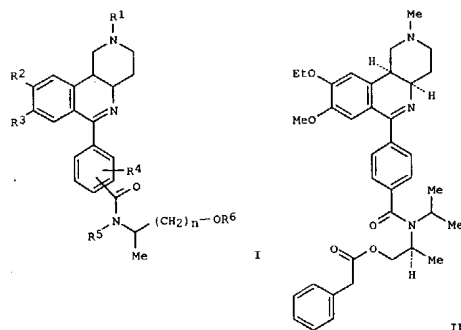
FILE COVERS 1907 - 5 May 2004 VOL 140 ISS 19  
FILE LAST UPDATED: 4 May 2004 (20040504/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 19

L10                    6 L9

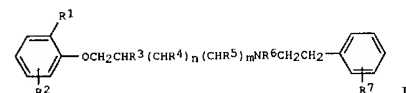
=> d l10 1-6 abs ibib hitstr



AB The title compds. I [R1 = C1-C4 alkyl; R2, R3 = OH, C1-C4 alkoxy, C3-C7 cycloalkoxy, C3-C7 cycloalkylmethoxy, fluorinated C1-C4 alkoxy; or R2/R3 =

C1-C2 alkylendioxy group; R4 = H, halo, NO2, C1-C4 alkyl, CF3, C1-C4 alkoxy; R5 = H or C1-C8 alkyl; R6 = H, C1-C8 alkylcarbonyl, C3-C7 cycloalkylcarbonyl, C3-C7 cycloalkylmethylcarbonyl, C1-C4 arylcarbonyl, arylalkylcarbonyl; n = 1-2] were prepared as PDE3/4 inhibitors for the treatment of respiratory disorders and/or dermatoses. Thus, reaction of 4-(4aR,10bS)-9-ethoxy-8-methoxy-2-methyl-1,2,3,4,4a,10b-hexahydrobenzo[c][1,6]naphthyridin-6-yl)benzoic acid with phenyl-acetic acid (S)-2-isopropylamino-Pr ester hydrochloride yielded compound II.

The latter inhibits PDE4 and PDE3 with -log IC50 = 9.8, 7.3 mol/L, resp.  
ACCESSION NUMBER: 2004:220332 CAPLUS  
DOCUMENT NUMBER: 140:270839  
TITLE: Preparation of phenylbenzonaphthyridine derivatives as  
as PDE3/4 inhibitors  
INVENTOR(S): Flockerzi, Dieter; Hummel, Rolf-peter; Reutter, Felix;  
PATENT ASSIGNEE(S): Flockerzi, Dieter; Hummel, Rolf-peter; Reutter, Felix  
SOURCE: Altana Pharma Ag, Germany  
PCT Int. Appl., 38 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:



AB Title compds. I; R1, R2 = H, halo, alkyl; R3, R4, R5 = H, alkyl; R6 = H, alkyl, benzyl; R7 = NO2, amino optionally monosubstituted by alkyl, benzoyl, alkylcarbonyl, alkylsulfonyl, alkylcarbamoyl, alkylthiocarbamoyl;

n, n = 0, 1; with a proviso], were prepared. Thus, N-methyl-2-(2,6-dimethylphenoxy)-1-methylethylamine and 4-nitrophenethyl bromide were refluxed in Me2CHOH to give N-[2-(2,6-dimethylphenoxy)-1-methylethyl]-N-methyl-2-(4-nitrophenyl)ethylamine hydrochloride. This was hydrogenated over Pd/C in Me2CHOH to give N-[2-(2,6-dimethylphenoxy)-1-methylethyl]-N-methyl-2-(4-aminophenyl)ethylamine, which was treated with MeSO2Cl/Et3N

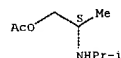
in CH2Cl2 to give N-[4-[2-(N-methyl-N-[2-(2,6-dimethylphenoxy)-1-methylethyl]amino]ethyl]phenyl]methanesulfonamide hydrochloride. The latter at 25 mg/kg orally in rats gave an arrhythmia score of 3.94, vs. 5.6 for controls.

ACCESSION NUMBER: 1999:388155 CAPLUS  
DOCUMENT NUMBER: 131:44657  
TITLE: Preparation of phenoxyalkylaminoethylarenes as antiarrhythmic compounds.  
INVENTOR(S): Papp, Gyula; Varro, Andras; Matyus, Peter; Varga, Ildiko; Retteg, Tivadar; Druga, Alice; Simay, Antal; Moravcsik, Imre; Berzsenyi, Pal; Barlocco, Daniela; Cignarella, Giorgio; Patfalusi, Marta  
PATENT ASSIGNEE(S): Gyogyszerkutato Intezet Kft., Hung.; Szent-Gyorgyi Albert Orvostudományi Egyetem  
SOURCE: PCT Int. Appl., 58 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO. | KIND   | DATE     | APPLICATION NO. | DATE     |
|------------|--|----------|-----------------|----------|
| WO 9929655 | A1   | 19990617 | WO 1998-HU101   | 19981210 |
| W:         | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, BG, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BE, BJ, CF, CG, CI, CH, GA, GN, GW, ML, MR, NE, SN, TD, TG |          |                 |          |
| CA 2313191 | AA   | 19990617 | CA 1998-2313191 | 19981210 |
| AU 9916789 | A1   | 19990628 | AU 1999-16789   | 19981210 |
| AU 738672  | B2   | 20010920 |                 |          |

L10 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
PATENT NO. KIND DATE APPLICATION NO. DATE  
WO 2004022557 A1 20040318 WO 2003-EP9617 20030829  
W: AE, AL, AU, BA, BR, CA, CN, CO, DZ, EC, GE, HR, ID, IL, IN, IS, JP, KR, LT, LV, MA, MK, MX, NO, NZ, PH, PL, SG, TN, UA, US, VN, YU, ZA, ZW, AM, AZ, BY, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR  
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR  
PRIORITY APPLN. INFO.: EP 2002-19904 A 20020904  
US 2002-407689P P 20020904  
OTHER SOURCE(S): MARPAT 140:270839  
IT 671821-81-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of phenylbenzonaphthyridine derivs. as PDE3/4 inhibitors)  
RN 671821-81-1 CAPLUS  
CN 1-Propanol, 2-[(1-methylethyl)amino]-, acetate (ester), (2S)- (9CI) (CA INDEX NAME)

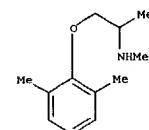
Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L10 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
EP 1037871 A1 20000927 EP 1998-961331 19981210  
EP 1037871 B1 20020703  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI  
BR 9814270 A 20011016 BR 1998-14270 19981210  
JP 2001525388 T2 20011211 JP 2000-524252 19981210  
AT 220058 E 20020715 AT 1998-961331 19981210  
NZ 504982 A 20020726 NZ 1998-504982 19981210  
RU 2193024 C2 20021120 RU 2000-118325 19981210  
PT 1037871 T 20021129 PT 1998-961331 19981210  
ES 2179547 T3 20030116 ES 1998-961331 19981210  
NO 2000002946 A 20000807 NO 2000-2946 20000698  
US 6265445 B1 20010724 US 2000-555602 20000728  
PRIORITY APPLN. INFO.: HU 1997-2411 A 19971211  
WO 1998-HU101 W 19981210  
OTHER SOURCE(S): MARPAT 131:44657  
IT 128942-29-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of phenoxyalkylaminoethylarenes as antiarrhythmics)  
RN 128942-29-0 CAPLUS  
CN 2-Propanamine, 1-(2,6-dimethylphenoxy)-N-methyl-, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



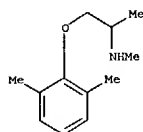
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L10 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Perpentylated and partially pentylated and acetylated  $\alpha$ - and  $\beta$ -cyclodextrins were used as chiral stationary phases for capillary gas chromatog. Enantiomeric separation of natural compds., flavor constituents, pheromones, pharmaceuticals and enantioselective chemical reaction products for stereochem. anal. is proposed.

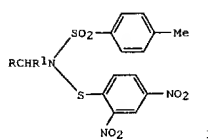
ACCESSION NUMBER: 1990:583987 CAPLUS  
 DOCUMENT NUMBER: 113:183987  
 TITLE: Enantioselective capillary gas chromatography with modified cyclodextrins as chiral stationary phases  
 AUTHOR(S): Koenig, Wilfried A.; Lutz, Sabine; Wenz, Gerhard  
 CORPORATE SOURCE: Inst. Org. Chem., Univ. Hamburg, Hamburg, D-2000/13, Fed. Rep. Ger.  
 SOURCE: Proc. Int. Symp. Cyclodextrins, 4th (1988), 465-71. Editor(s): Huber, O.; Szejtli, Jozsef. Kluwer: Dordrecht, Neth.  
 CODEN: 56SBAU  
 CONFERENCE

DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 IT 128942-29-0  
 RL: ANST (Analytical study); PROC (Process)  
 (separation of, from enantiomer by capillary gas chromatog. after trifluoroacetylation, on modified cyclodextrin chiral stationary phase)  
 RN 128942-29-0 CAPLUS  
 CN 2-Propanamine, 1-(2,6-dimethylphenoxy)-N-methyl-, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



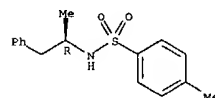
L10 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN  
 GI



AB The absolute configuration of chiral primary amines RCHR1NH2 [R = Me, Et; R1 = Et, Me(CH2)4, Me3C, Ph, p-BrC6H4, PhCH2,  $\alpha$ -naphthyl] were determined from the optical rotation (ORD) of the corresponding sulfenylsulfonamide derivs. I. The chiral center in the amine moiety induces asymmetry at the sulfenamide chiral axis by shifting the equilibrium between diastereomers.  
 ACCESSION NUMBER: 1984:629552 CAPLUS  
 DOCUMENT NUMBER: 101:229552  
 TITLE: Stereochemistry of trivalent nitrogen compounds. 39. Thermodynamic asymmetric induction: a new approach to the development of rules for the determination of absolute configurations

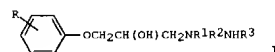
AUTHOR(S): Raban, Morton; Moulin, Christophe P.; Lauderback, Sanford K.; Swilley, Brian  
 CORPORATE SOURCE: Dep. Chem., Wayne State Univ., Detroit, MI, 48202, USA  
 SOURCE: Tetrahedron Letters (1984), 25(32), 3419-22  
 CODEN: TELEAY; ISSN: 0040-4033  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 72938-94-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, optical rotation, and derivatization of)  
 RN 72938-94-4 CAPLUS  
 CN Benzenesulfonamide, 4-methyl-N-(1-methyl-2-phenylethyl)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

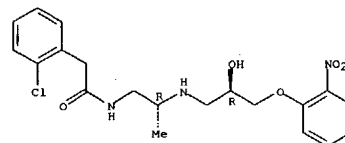
L10 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN  
 GI



AB The title compds. I (R = H, Cl, CN, Me, NO2, CH:CHOCH2, Ac, vinyl, AcO; R1 = H or Me; R2 = CH2, Cl-3 alkylene, or propylene; R3 = HCO, Ac, acyl, carbamoyl, substituted carbamoyl, and alkyl- or arylsulfonyl) were mostly prepared by cleavage of the appropriate epoxypheoxypropane with the corresponding amide. Many compds. were more potent than propranolol as  $\beta$ -blockers, yet showed a cardioselectivity comparable to that of practolol in the anesthetized cat. Structure activity relations are discussed.

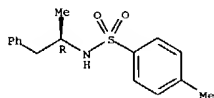
ACCESSION NUMBER: 1982:555937 CAPLUS  
 DOCUMENT NUMBER: 97:155937  
 TITLE:  $\beta$ -Adrenergic blocking agents. 22. 1-Phenoxy-3-[[[substituted-amido]alkyl]amino]-2-propanols  
 AUTHOR(S): Large, M. S.; Smith, L. H.  
 CORPORATE SOURCE: Pharm. Div., Imp. Chem. Ind. PLC, Alderley Park/Macclesfield/Cheshire, UK  
 SOURCE: Journal of Medicinal Chemistry (1982), 25(11), 1286-92  
 CODEN: JMCMAR; ISSN: 0022-2623  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 97:155937  
 IT 83029-56-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and cardioselective sympatholytic activity of)  
 RN 83029-56-5 CAPLUS  
 CN Benzenacetamide, 2-chloro-N-[2-[[2-hydroxy-3-(2-nitrophenoxy)propyl]amino]propyl]-, (R\*,R\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L10 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB ORD (and in some cases CD) spectra are presented for 11  
 RSN(SO2C6H4Me-4)CHMeR1 (R = CCl3, 4-chloro-2-methylphenyl, 2-nitrophenyl,  
 2,4-dinitrophenyl; R1 = Ph, 1-naphthyl, benzyl). A number of the spectra  
 exhibit intense Cotton effects characteristic of inherently dissym.  
 chromophores near 200 nm. The configuration at the asym. C seems to be  
 related to the sign of long-wavelength transition (near 350 nm) in the  
 2,4-dinitrobenzenesulfenamides. This is ascribed to an equilibrium asym.  
 induction from the asym. center into the sulfenamide chiral axis, whose  
 configuration is reflected by the sign of this Cotton effect.  
 Examination of such derivs. may provide a useful method for determination of the  
 absolute configuration of amines.  
 ACCESSION NUMBER: 1980:445786 CAPLUS  
 DOCUMENT NUMBER: 93:45786  
 TITLE: Chiroptical properties of sulfenamides  
 AUTHOR(S): Raban, M.; Lauderback, S. K.  
 CORPORATE SOURCE: Dep. Chem., Wayne State Univ., Detroit, MI, 48202,  
 USA  
 SOURCE: Journal of Organic Chemistry (1980), 45(13), 2636-41  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 72938-94-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation and reaction with sulfonyl chlorides)  
 RN 72938-94-4 CAPLUS  
 CN Benzenesulfonamide, 4-methyl-N-(1-methyl-2-phenylethyl)-, (R)- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.



|  |            |         |
|--|------------|---------|
| => fil reg                                 |            |         |
| COST IN U.S. DOLLARS                       | SINCE FILE | TOTAL   |
|  | ENTRY      | SESSION |
| FULL ESTIMATED COST                        | 30.29      | 37.01   |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL   |
|  | ENTRY      | SESSION |
| CA SUBSCRIBER PRICE                        | -4.16      | -4.16   |

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 provided by InfoChem.

STRUCTURE FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7  
 DICTIONARY FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7

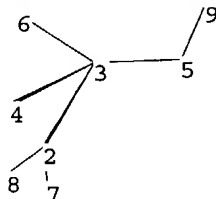
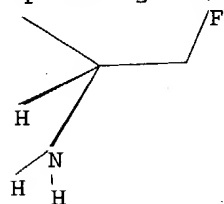
TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
 information enter HELP PROP at an arrow prompt in the file or refer  
 to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>  
 Uploading C:\Program Files\Stnexp\Queries\09857465.str



chain nodes :  
 2 3 4 5 6 7 8 9  
 chain bonds :  
 2-3 2-7 2-8 3-4 3-5 3-6 5-9  
 exact/norm bonds :  
 2-3  
 exact bonds :  
 2-7 2-8 3-4 3-5 3-6 5-9

G1:H,F

Match level :  
 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

Stereo Bonds:

3-2 (Single Wedge).  
4-3 (Single Hash).

Stereo Chiral Centers:

3 (Parity=Don't Care)

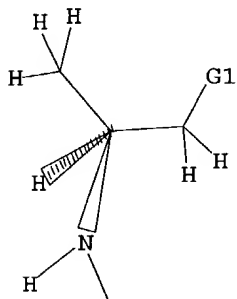
Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 3

L11 STRUCTURE UPLOADED

=> d query

L11 STR



G1 H, F

Structure attributes must be viewed using STN Express query preparation.

=> s l11

SAMPLE SEARCH INITIATED 16:50:17 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 115497 TO ITERATE

0.9% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

4 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*

PROJECTED ITERATIONS: EXCEEDS 1000000  
PROJECTED ANSWERS: EXCEEDS 7950

L12 4 SEA SSS SAM L11

=> s l11 full

FULL SEARCH INITIATED 16:50:22 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - >1,000,000 TO ITERATE

< 17.3% PROCESSED 400000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.13

1512 ANSWERS



FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: EXCEEDS 1000000  
PROJECTED ANSWERS: EXCEEDS 8457

L13 1512 SEA SSS FUL L11

=> fil caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST  | 155.42           | 192.43        |

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FILE COVERS 1907 - 5 May 2004 VOL 140 ISS 19  
FILE LAST UPDATED: 4 May 2004 (20040504/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l13

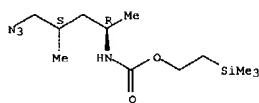
L14 262 L13

=> d l14 200-262 abs ibib hitstr

L14 ANSWER 200 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN  
 AB A set of three-armed urea-containing anion receptors was prepared. The receptors all have the same binding topology but differ in the level of conformational preorganization with respect to the arrangement of the side-arms relative to the platform and within the side arms themselves. This is mirrored in a specific increase (+2.5) in the binding constant for chloride and in a 12-fold increase in the chloride/nitrate selectivity.

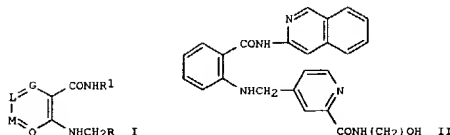
ACCESSION NUMBER: 2002:876129 CAPLUS  
 DOCUMENT NUMBER: 138:187254  
 TITLE: Effect of conformational preorganization of a three-armed host on anion binding and selectivity  
 AUTHOR(S): Hettche, Frank; Reiss, Philipp; Hoffmann, Reinhard W.  
 CORPORATE SOURCE: Fachbereich Chemie der Philipps Universität Marburg, Marburg, 35032, Germany  
 SOURCE: Chemistry--A European Journal (2002), 8(21), 4946-4956  
 CODEN: CEUJED; ISSN: 0947-6539  
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:187254  
 IT 499101-26-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (phthaloylation; effect of conformational preorganization of a three-armed host on anion binding and selectivity)  
 RN 499101-26-7 CAPLUS  
 CN Carbamic acid, [(1R,3S)-4-azido-1,3-dimethylbutyl]-, 2-(trimethylsilyl)ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L14 ANSWER 201 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN  
 GI



AB Title compds. I [G, L, M, Q = N, (un)substituted CH,  $\leq$ 1 of them being N; R = (un)substituted N heterocycle; R1 = (un)substituted alkyl, alkenyl, cycloalkyl, cycloalkenyl, aryl, heteroaryl] were prepared. I are inhibitors of VEGFR-2 and VEGFR-3 and are used as medicaments for treating diseases that are caused by persistent angiogenesis, such as psoriasis, Kaposi's sarcoma, restenosis, such as e.g. stent-induced restenosis, endometriosis, Crohn's disease, Hodgkin's disease, leukemia, arthritis, such as rheumatoid arthritis, hemangioma, angiofibromatosis, in eye diseases such as diabetic retinopathy, neovascular glaucoma, in kidney diseases such as glomerulonephritis, diabetic nephropathy, malign nephrosclerosis, thrombotic micro-angiopathic syndrome, transplant rejection and glomerulopathy, in fibrotic diseases such as hepatic cirrhosis, mesangial-cell proliferative diseases, arteriosclerosis, damage to the nerve tissue and inhibition of the re-occlusion of vessels after balloon catheter treatment, in vessel prosthetics or after the use of mech. devices for keeping vessels open, e.g. stents, as immunosuppressants, to support wound healing without scars and in cases of age spots and contact dermatitis. I can also be used as inhibitors of VEGFR-3 in lymphangiogenesis for hyperplastic and dysplastic changes in the lymphatic system. Thus, 2-amino-N-isoquinolin-3-ylbenzamide was treated with 2-bromo-5-pyridinecarboxaldehyde, followed by carboxylation and amidation to give the amide II. II had IC50 for inhibition of VEGFR-2 of 40 nM and for inhibition of cytochrome 450 isoenzyme 2C9 of 2.9  $\mu$ M.

ACCESSION NUMBER: 2002:868928 CAPLUS  
 DOCUMENT NUMBER: 137:352900  
 TITLE: Selective anthranilamide pyridine amides as inhibitors of VEGFR-2 and VEGFR-3  
 INVENTOR(S): Ernst, Alexander; Huth, Andreas; Krueger, Martin; Thierauch, Karl-Heinz; Menrad, Andreas; Haberey, Martin  
 PATENT ASSIGNER(S): Schering Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 115 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

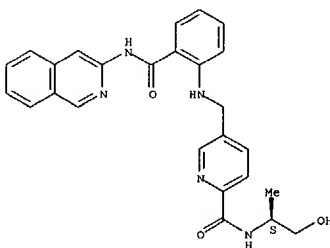
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|------------|------|------|-----------------|------|
|            |      |      |                 |      |

L14 ANSWER 201 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)

WO 2002090352 A2 20021114 WO 2002-EP4924 20020503  
 WO 2002090352 A3 20030501  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 DE 10123574 A1 20021128 DE 2001-10123574 20010508  
 DE 10125294 A1 20021121 DE 2001-10125294 20010515  
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 PRIORITY APPLN. INFO.: DE 2001-10123574 A 20010508  
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 DE 2001-10164590 A 20011221  
 WO 2002-EP4924 W 20020503  
 OTHER SOURCE(S): MARPAT 137:352900  
 IT 474798-02-2P 474798-03-3P 474798-18-0P  
 474798-19-1P 474798-48-6P 474798-49-7P  
 474798-58-8P 474798-59-9P 474798-70-4P  
 474798-71-5P 474798-77-1P 474798-78-2P  
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 474798-18-3P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of isoquinolinylcarbamoylphenylaminomethylpyridinecarboxamides as VEGFR-2 and VEGFR-3 inhibitors)  
 RN 474798-02-2 CAPLUS  
 CN 2-Pyridinecarboxamide, N-[(1S)-2-hydroxy-1-methylethyl]-5-[[[2-[(3-isoquinolinylamino)carbonyl]phenyl]amino]methyl]- (9CI) (CA INDEX NAME)

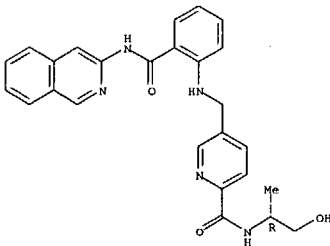
Absolute stereochemistry.

L14 ANSWER 201 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)



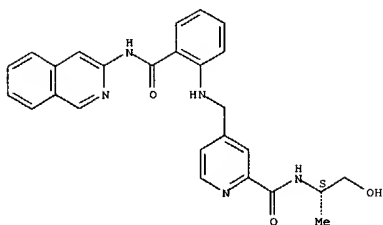
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Absolute stereochemistry.



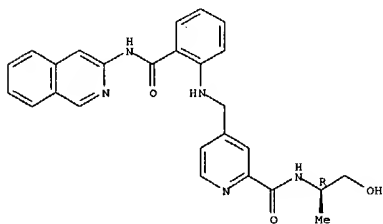
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Absolute stereochemistry.



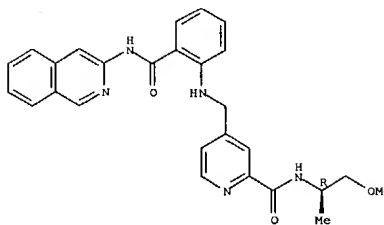
RN 474798-19-1 CAPLUS  
CN 2-Pyridinecarboxamide, N-[(1R)-2-hydroxy-1-methylethyl]-4-[[[2-[(3-isoquinolinylamino)carbonyl]phenyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



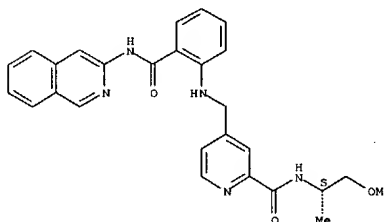
RN 474798-48-6 CAPLUS  
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Absolute stereochemistry.



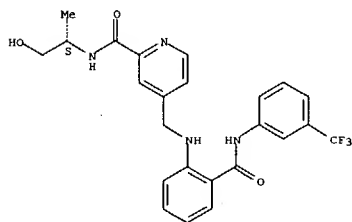
RN 474798-49-7 CAPLUS  
CN 2-Pyridinecarboxamide, 4-[[[2-[(3-isoquinolinylamino)carbonyl]phenyl]amino]methyl]-N-[(1S)-2-methoxy-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



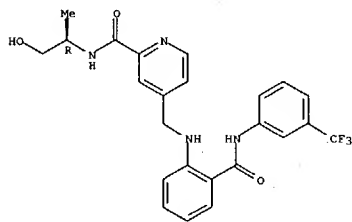
RN 474798-58-8 CAPLUS  
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Absolute stereochemistry.



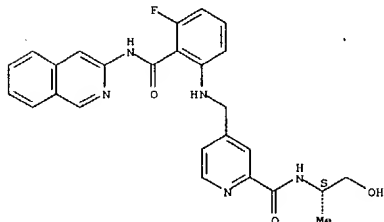
RN 474798-59-9 CAPLUS  
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Absolute stereochemistry.



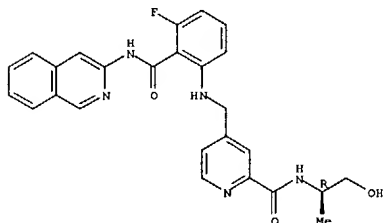
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CN 2-Pyridinecarboxamide, 4-[[[2-[[[3-(trifluoromethyl)phenyl]amino]carbonyl]phenyl]amino]methyl]-N-[(1S)-2-hydroxy-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



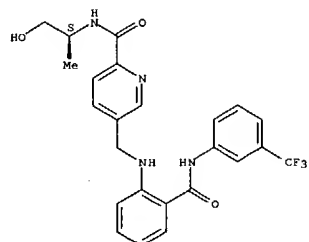
RN 474798-71-5 CAPLUS  
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Absolute stereochemistry.



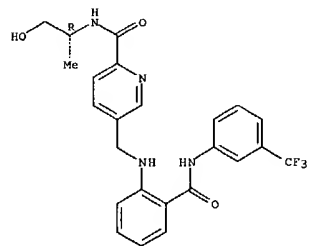
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Absolute stereochemistry.



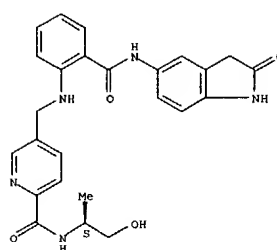
RN 474798-78-2 CAPLUS  
CN 2-Pyridinecarboxamide, N-[(1R)-2-hydroxy-1-methylethyl]-5-[[[2-[[[3-(trifluoromethyl)phenyl]amino]carbonyl]phenyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



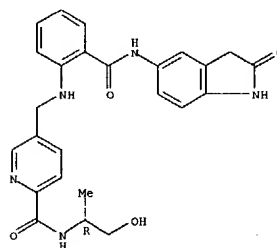
RN 474799-02-5 CAPLUS  
CN 2-Pyridinecarboxamide, 5-[[[2-[[[2,3-dihydro-2-oxo-1H-indol-5-yl]amino]carbonyl]phenyl]amino]methyl]-N-[(1S)-2-hydroxy-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



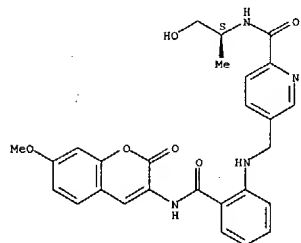
RN 474799-03-6 CAPLUS  
CN 2-Pyridinecarboxamide, 5-[[[2-[[[2,3-dihydro-2-oxo-1H-indol-5-yl]amino]carbonyl]phenyl]amino]methyl]-N-[(1R)-2-hydroxy-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



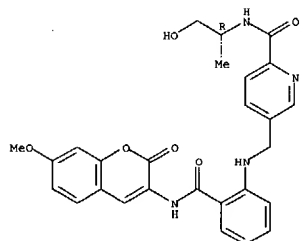
RN 474799-06-9 CAPLUS  
CN 2-Pyridinecarboxamide, N-[(1S)-2-hydroxy-1-methylethyl]-5-[[[2-[[[7-methoxy-2-oxo-2H-1-benzopyran-3-yl]amino]carbonyl]phenyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



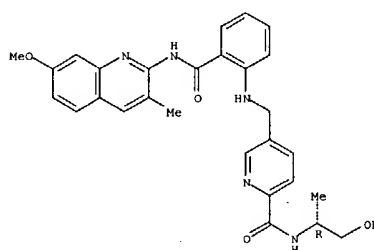
RN 474799-07-0 CAPLUS  
CN 2-Pyridinecarboxamide, N-[(1R)-2-hydroxy-1-methylethyl]-5-[[[2-[[[7-methoxy-2-oxo-2H-1-benzopyran-3-yl]amino]carbonyl]phenyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



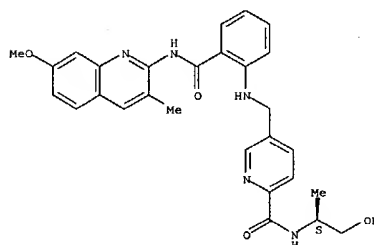
RN 474799-08-1 CAPLUS  
CN 2-Pyridinecarboxamide, N-[(1R)-2-hydroxy-1-methylethyl]-5-[[[2-[[[7-methoxy-3-methyl-2-quinolinyl]amino]carbonyl]phenyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



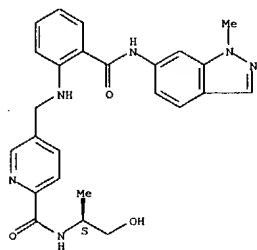
RN 474799-10-5 CAPLUS  
CN 2-Pyridinecarboxamide, N-[(1S)-2-hydroxy-1-methylethyl]-5-[[[2-[[[7-methoxy-3-methyl-2-quinolinyl]amino]carbonyl]phenyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



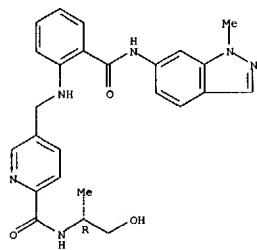
RN 474799-12-7 CAPLUS  
CN 2-Pyridinecarboxamide, N-[(1S)-2-hydroxy-1-methylethyl]-5-[[[2-[[[1-methyl-1H-indazol-6-yl]amino]carbonyl]phenyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



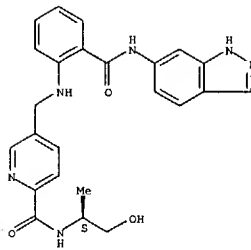
RN 474799-13-8 CAPLUS  
 CN 2-Pyridinecarboxamide,  
 N-[(1R)-2-hydroxy-1-methylethyl]-5-[[[2-[(1-methyl-  
 1H-indazol-6-yl)amino]carbonyl]phenyl]amino]methyl]- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry.



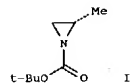
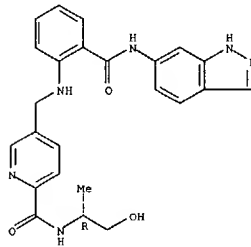
RN 474799-17-2 CAPLUS  
 CN 2-Pyridinecarboxamide, N-[(1S)-2-hydroxy-1-methylethyl]-5-[[[2-[(1H-  
 indazol-6-yl)amino]carbonyl]phenyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 474799-18-3 CAPLUS  
 CN 2-Pyridinecarboxamide, N-[(1R)-2-hydroxy-1-methylethyl]-5-[[[2-[(1H-  
 indazol-6-yl)amino]carbonyl]phenyl]amino]methyl]- (9CI) (CA INDEX NAME)

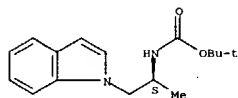
Absolute stereochemistry.



AB An improved process for the N-alkylation of indoles using N-protected  
 homochiral aziridine 1 has been developed. This procedure allows reduced  
 quantities of homochiral starting material to be used and leads to  
 improved overall yields and operability.

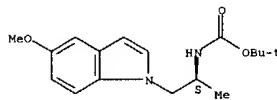
ACCESSION NUMBER: 2002:863131 CAPLUS  
 DOCUMENT NUMBER: 138:106567  
 TITLE: An Improved Process for the N-Alkylation of Indoles  
 Using Chiral N-Protected 2-Methylaziridines  
 AUTHOR(S): Giles, Paul R.; Rogers-Evans, Mark; Soukup, Milan;  
 Knight, John  
 CORPORATE SOURCE: Vernalis Research Ltd., Winnersh, Wokingham, RG41  
 SUA,  
 UK  
 SOURCE: Organic Process Research & Development (2003), 7(1),  
 22-24  
 CODEN: OPRDFK; ISSN: 1083-6160  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:106567  
 IT 486404-38-OP 502689-73-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (N-alkylation of indoles using chiral N-protected methylaziridines)  
 RN 486404-38-0 CAPLUS  
 CN Carbamic acid, [(1S)-2-(1H-indol-1-yl)-1-methylethyl]-, 1,1-dimethylethyl  
 ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

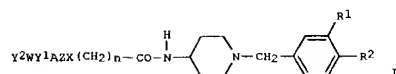


RN 502689-73-8 CAPLUS  
 CN Carbamic acid, [(1S)-2-(5-methoxy-1H-indol-1-yl)-1-methylethyl]-,  
 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT



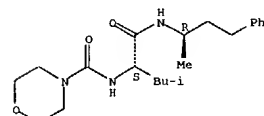
AB The title compds. I [R1, R2 = H, halo; etc.; n = 1 - 5; X = bond, O, etc.; Z = bond, aryl, etc.; Y1 = bond, CO, etc.; A = aryl, etc.; W = aryl, etc.; Y2 = amino, etc.] are prepared. The bioactivities of compds. of this invention were demonstrated.

ACCESSION NUMBER: 2002:849618 CAPLUS  
DOCUMENT NUMBER: 137:370092  
TITLE: Preparation of benzylpiperidine derivatives as chemokine inhibitors  
INVENTOR(S): Kiuchi, Masatoshi; Kuroita, Takanobu; Tomozane, Hideo;  
Takeda, Shuuzou; Tanaka, Yoshihito; Higashi, Hidemitsu; Kuwahara, Shigeki  
PATENT ASSIGNEE(S): Mitsubishi Pharma Corporation, Japan  
SOURCE: PCT Int. Appl., 231 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

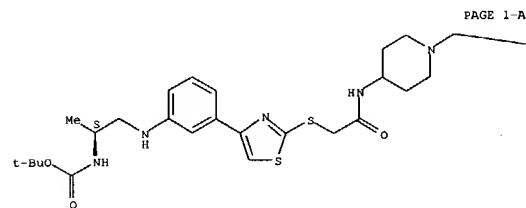
| PATENT NO.             | KIND   | DATE              | APPLICATION NO. | DATE       |
|------------------------|--|-------------------|-----------------|------------|
| WO 2002088111          | A1   | 20021107          | WO 2002-JP4291  | 20020426   |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, ME, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |                   |                 |            |
| TM                     | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |                   |                 |            |
| EP 1389616             | A1   | 20040218          | EP 2002-722878  | 20020426   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |                   |                 |            |
| PRIORITY APPLN. INFO.: |  |                   | JP 2001-132853  | A 20010427 |
|                        |  |                   | JP 2001-277139  | A 20010912 |
|                        |  |                   | WO 2002-JP4291  | W 20020426 |
| OTHER SOURCE(S):       |  | MARPAT 137:370092 |                 |            |
| IT 474969-57-8P        |  |                   |                 |            |
| RL:                    | PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)   |                   |                 |            |
| RN                     | 474969-57-8 CAPLUS   |                   |                 |            |

L14 ANSWER 204 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
AB The specificity of the immune response relies on processing of foreign proteins and presentation of antigenic peptides at the cell surface. Inhibition of antigen presentation, and the subsequent activation of T-cells, should, in theory, modulate the immune response. The cysteine protease cathepsin S performs a fundamental step in antigen presentation and therefore represents an attractive target for inhibition. Herein, the authors report a series of potent and reversible Cathepsin S inhibitors based on dipeptide nitriles. These inhibitors show nanomolar inhibition of the target enzyme as well as cellular potency in a human B cell line. The first x-ray crystal structure of a reversible inhibitor cocrystd. with cathepsin S is also reported.

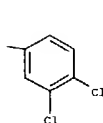
ACCESSION NUMBER: 2002:835002 CAPLUS  
DOCUMENT NUMBER: 138:56234  
TITLE: Design and synthesis of dipeptide nitriles as reversible and potent cathepsin S inhibitors  
AUTHOR(S): Ward, Yancey D.; Thomson, David S.; Frye, Leah L.; Cywin, Charles L.; Morwick, Tina; Emmanuel, Michel  
J.: Zindell, Renee; McNeil, Daniel; Bekkali, Younes; Giradot, Marc; Hrapchak, Matt; DeTuri, Molly; Crane, Kathy; White, Della; Pav, Susan; Wang, Yong; Hao, Ming-Hong; Grygon, Christine A.; Labadia, Mark E.; Freeman, Dorothy M.; Davidson, Walter; Hopkins, Jerry L.; Brown, Maryanne L.; Spero, Denise M.  
CORPORATE SOURCE: Boehringer Ingelheim Pharmaceuticals, Ridgefield, CT, 06877-0368, USA  
SOURCE: Journal of Medicinal Chemistry (2002), 45(25), 5471-5482  
CODEN: JMCMAR; ISSN: 0022-2623  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:56234  
IT 479091-47-9P  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation and biol. activity of dipeptide nitriles as reversible and potent cathepsin S inhibitors)  
RN 479091-47-9 CAPLUS  
CN 4-Morpholinecarboxamide, N-[(1S)-3-methyl-1-[[[1(R)-1-methyl-3-phenylpropyl]amino]carbonyl]butyl]- (9CI) (CA INDEX NAME)  
Absolute stereochemistry.



Absolute stereochemistry.



PAGE 1-A



PAGE 1-B

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

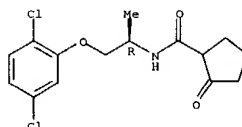
L14 ANSWER 205 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN

AB Among the active-site residues of scytalone dehydratase, the side-chain carboxamide of asparagine 131 has the greatest potential for strong electrostatic interactions. Structure-based inhibitor design aimed at enhancing interactions with this residue led to the synthesis of a series of highly potent inhibitors that have a five- or six-membered ring containing a carbonyl functionality for hydrogen bonding. To achieve a good orientation for hydrogen bonding, the inhibitors incorporate a Ph substituent that displaces a phenylalanine residue away from the five- or six-membered rings. Without the Ph substituent, inhibitor binding potency is diminished by three orders of magnitude. Larger  $K_i$  values of a site-directed mutant (Asn131Ala) of scytalone dehydratase in comparison to those of wild-type enzyme validate the design concept. The most potent inhibitor ( $K_i = 15 \text{ pM}$ ) contains a tetrahydrothiophene that can form a single hydrogen bond with the asparagine carboxamide. Inhibitors with a butyrolactam that can form two hydrogen bonds with the asparagine carboxamide demonstrate excellent in vivo fungicidal activity.

ACCESSION NUMBER: 2002:823392 CAPLUS  
DOCUMENT NUMBER: 138:299663  
TITLE: Design of inhibitors of scytalone dehydratase: probing interactions with an asparagine carboxamide  
AUTHOR(S): Basarab, Gregory S.; Jordan, Douglas B.; Gehret, Troy C.; Schwartz, Rand S.  
CORPORATE SOURCE: Experimental Station, DuPont Central Research & Development, Wilmington, DE, 19880, USA  
SOURCE: Bioorganic & Medicinal Chemistry (2002), 10(12), 4143-4154  
CODEN: BMECEP; ISSN: 0968-0896  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:299663  
IT 508213-72-7P  
RL: AGR (Agricultural use); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(product/enzyme inhibitor/fungicidal; preparation of cyclic carboxamides as inhibitors of scytalone dehydratase wild-type and mutant forms in relation to fungicides for control of rice blast disease)  
RN 508213-72-7 CAPLUS  
CN Cyclopentanecarboxamide,  
N-[(1R)-2-(2,5-dichlorophenoxy)-1-methylethyl]-2-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L14 ANSWER 205 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



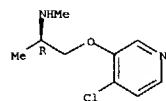
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L14 ANSWER 206 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN

AB Analogs of the potent nicotinic receptor agonist 3-(2-aminoethoxy)pyridine substituted at the 5' and 6'-positions of the pyridine ring were synthesized and tested in vitro for nicotinic receptor binding activity (displacement of [3H]-(-)-cytisine from whole rat brain synaptic membranes). The substituted analogs exhibited  $K_i$  values ranging from 0.076 to 319 nM compared to a  $K_i$  value of 26 nM for previously identified R-84543. Among the compds. tested, 5'-vinyl-6'-chloro substituted R-84543 was the most potent.

ACCESSION NUMBER: 2002:808837 CAPLUS  
DOCUMENT NUMBER: 138:187613  
TITLE: Synthesis and biological evaluation of pyridine-modified analogues of 3-(2-Aminoethoxy)pyridine as novel nicotinic receptor ligands  
AUTHOR(S): Lin, Nan-Hong; Dong, Liming; Bunnelle, William H.; Anderson, David J.; Meyer, Michael D.  
CORPORATE SOURCE: Pharmaceutical Products Division, Neurological and Urological Diseases Research, Abbott Laboratories, Abbott Park, IL, 60064-3500, USA  
SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(22), 3321-3324  
CODEN: BMCLE8; ISSN: 0960-894X  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:187613  
IT 497949-17-4P 497949-18-5P 497949-19-6P 497949-20-9P 497949-21-0P 497949-22-1P 497949-23-2P 497949-24-3P 497949-25-4P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(prepn of pyridine analogs of 3-(2-aminoethoxy)pyridine from  $\alpha$ -amino carboxylic acids and evaluation of their activity as nicotinic receptor ligands)  
RN 497949-17-4 CAPLUS  
CN 2-Propanamine, 1-[(4-chloro-3-pyridinyl)oxy]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

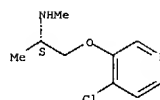
Absolute stereochemistry.



RN 497949-18-5 CAPLUS  
CN 2-Propanamine, 1-[(4-chloro-3-pyridinyl)oxy]-N-methyl-, (2S)- (9CI) (CA INDEX NAME)

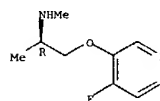
Absolute stereochemistry.

L14 ANSWER 206 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



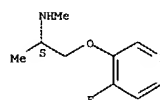
RN 497949-19-6 CAPLUS  
CN 2-Propanamine, 1-[(4-fluoro-3-pyridinyl)oxy]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



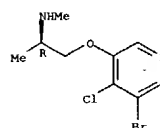
RN 497949-20-9 CAPLUS  
CN 2-Propanamine, 1-[(4-fluoro-3-pyridinyl)oxy]-N-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



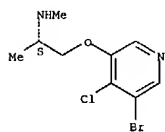
RN 497949-21-0 CAPLUS  
CN 2-Propanamine, 1-[(5-bromo-4-chloro-3-pyridinyl)oxy]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



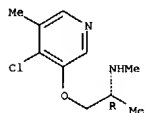
RN 497949-22-1 CAPLUS  
CN 2-Propanamine, 1-[(5-bromo-4-chloro-3-pyridinyl)oxy]-N-methyl-, (2S)-

Absolute stereochemistry.



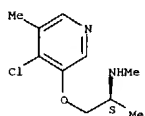
RN 497949-23-2 CAPLUS  
CN 2-Propanamine, 1-[(4-chloro-5-methyl-3-pyridinyl)oxy]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



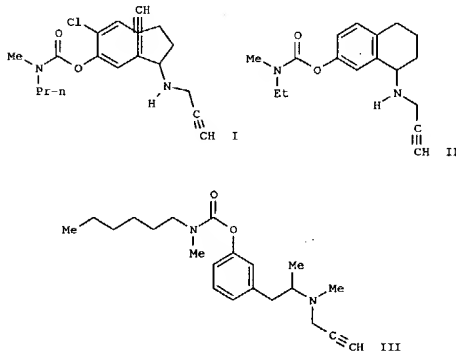
RN 497949-24-3 CAPLUS  
CN 2-Propanamine, 1-[(4-chloro-5-methyl-3-pyridinyl)oxy]-N-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 497949-25-4 CAPLUS  
CN 2-Propanamine, 1-[(4-chloro-5-methyl-3-pyridinyl)ethenyl]-3-pyridinyl]oxy]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

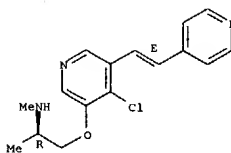
Absolute stereochemistry.  
Double bond geometry as shown.



AB Carbamate derivs. of N-propargylaminoindanes (Series I) and N-propargylphenethylamines (Series II) were synthesized via multistep procedures from the corresponding hydroxy precursors. The resp. rasagiline- and selegiline-related series were designed to combine inhibitory activities of both acetylcholine esterase (AChE) and monoamine oxidase (MAO) by virtue of their carbamoyl and propargylamine pharmacophores. Each compound was tested for these activities in vitro

in order to find moles. With similar potencies against each enzyme. Comps. with such dual AChE and MAO inhibitory activities are expected to have potential for the treatment of Alzheimer's disease. The observed SAR also offers insight into the requirements of the active sites on these enzymes.

A carbamate moiety was found to be essential for AChE inhibition, which was absent in the corresponding hydroxy precursors. The propargyl group caused 2-70-fold decrease in AChE inhibitory activity (depending on the position of the carbamoyl group) of Series I, but had little or no effect in Series II. Thus, the 6- and 7-carbamoyloxyphenyls in Series I were either equipotent to, or slightly (2- to 5-fold) less active as AChE inhibitors than, the corresponding compts. in Series II, while the 4-carbamoyloxyphenyls were more potent. The presence of the carbamate moiety in 6- and 7-carbamoyloxyphenyls of Series I, considerably decreased MAO-A and -B inhibitory activity, compared to that of the parent hydroxy analogs, while the opposite was true for Series II. Thus, the 6- and 7-carbamoyloxyphenyls in Series I were 2-3 orders of magnitude weaker MAO



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L14 ANSWER 207 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
inhibitors while the 4- carbamoyloxyphenyls were equipotent with the corresponding compts. in Series II. In both series, N-methylation of the propargylamine enhanced the MAO (A and B equally) inhibitory activities and decreased the AChE inhibitory activity. Two candidates belonging to the indan and tetralin ring systems (HCl salts of I and II) and one phenethylamine (mesylate salt of III) were identified as possible leads for further development based on the following criteria: (a) comparable AChE and MAO-B inhibitory activities, (b) good to moderate AChE inhibitory activity, and (c) lack of strong MAO-A selectivity. However, it is likely that these compts. will be metabolized to the corresponding phenols, with inhibitory activities against AChE and/or MAO-A or -B, different from those of the parent carbamates. Thus, the apparent enzyme inhibition will be a result of the combined inhibition of all of these individual metabolites. The results of our ongoing in vivo screening programs will be published elsewhere.

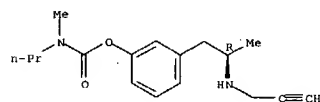
ACCESSION NUMBER: 2002:808526 CAPLUS  
DOCUMENT NUMBER: 138:55734  
TITLE: Novel Dual Inhibitors of AChE and MAO Derived from Hydroxy Aminoindan and Phenethylamine as Potential Treatment for Alzheimer's Disease  
AUTHOR(S): Sterling, Jeffrey; Herzog, Yaakov; Goren, Tamar; Finkelstein, Mina; Lerner, David; Goldenberg, Willy; Miskolczi, Istvan; Molnar, Sander; Rantal, Ferenc; Tamas, Tivadar; Toth, Gyorgy; Zagayva, Adela; Zekany, Andras; Lavian, Gila; Gross, Aviva; Friedman, Rachel; Razin, Michal; Huang, Wei; Kraus, Boris; Chorev, Michael; Youdim, Moussa B.; Weinstock, Marta  
CORPORATE SOURCE: Research and Development Division, Teva  
SOURCE: Industries, Jerusalem, 91010, Israel  
Journal of Medicinal Chemistry (2002), 45(24), 5260-5279  
CODEN: JMCMAR; ISSN: 0022-2623  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:55734  
IT 479206-16-1P 479206-17-2P

RI: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(stereoselective preparation of aminoindanes with inhibitory activity toward acetylcholine esterase and monoamine oxidase useful as anti-Alzheimer's agents)  
RN 479206-16-1 CAPLUS  
CN Carbamic acid, methylpropyl-, 3-[(2R)-2-(2-propynylamino)propyl]phenyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



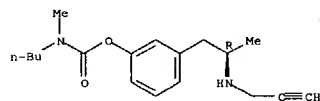
L14 ANSWER 207 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



● HCl

RN 479206-17-2 CAPLUS  
CN Carbamic acid, butylmethyl-, 3-[(2R)-2-(2-propynylamino)propyl]phenyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L14 ANSWER 208 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN

AB The structural properties of four mixed  $\beta$ -peptides with alternating  $\beta$ 2/ $\beta$ 3- or  $\beta$ 3/ $\beta$ 2-sequences, R1-(S)- $\beta$ 3-Val-(S)- $\beta$ 3-Ala-(S)- $\beta$ 2-Leu-(R)- $\beta$ 3-Val-(S)- $\beta$ 2-Ala-(S)- $\beta$ 3-Leu-OR2 (R1 = tert-butoxycarbonyl, R2 = CH<sub>2</sub>Ph) (1), R1-(R)- $\beta$ 3-Val-(S)- $\beta$ 2-Ala-(S)- $\beta$ 3-Leu-(S)- $\beta$ 2-Val-(S)- $\beta$ 3-Ala-(S)- $\beta$ 2-Leu-OR2 (R1 = tert-butoxycarbonyl, R2 = CH<sub>2</sub>Ph) (2), R1-(R)- $\beta$ 3-Val-(S)- $\beta$ 2-Ala-(S)- $\beta$ 3-Leu-(S)- $\beta$ 2-Val-(S)- $\beta$ 3-Ala-(S)- $\beta$ 2-Leu-(R)- $\beta$ 3-Val-(S)- $\beta$ 2-Ala-(S)- $\beta$ 3-Leu-OR2 (R1 = tert-butoxycarbonyl, R2 = CH<sub>2</sub>Ph) (3), (R1 = R2 = H) (4), have been analyzed by two-dimensional homonuclear 1H-NMR- and CD spectroscopic measurements. All four  $\beta$ -peptides fold into (P)-helices with twelve- and ten-membered H-bonded rings. CD Spectra of the mixed  $\beta$ 3/ $\beta$ 2-hexapeptide 2 and  $\beta$ 3/ $\beta$ 2-nonapeptide 3, indicating that peptides of this type also adopt the 12/10-helical conformation, were confirmed by NMR structural anal. For the deprotected  $\beta$ 3/ $\beta$ 2-nonapeptide 5d, NOEs not consistent with the 10/12 helix have been observed, showing that the stability of the helix decreases upon

N-terminal deprotection. From the NMR structures obtained, an idealized helical-wheel representation was generated, which will be used for the design of further 12/10 or 10/12 helices.

ACCESSION NUMBER: 2002:805614 CAPLUS  
DOCUMENT NUMBER: 138:153820  
TITLE: Mixed  $\beta$ 2/ $\beta$ 3-hexapeptides and  $\beta$ 2/ $\beta$ 3-nonapeptides folding to (P)-helices with alternating twelve- and ten-membered hydrogen-bonded rings  
AUTHOR(S): Rueping, Magnus; Schreiber, Jurg V.; Lelais, Gerald; Jaun, Bernhard; Seebach, Dieter  
CORPORATE SOURCE: Laboratorium fur Organische Chemie der Eidgenossischen  
SOURCE: Technischen Hochschule, ETH-Honggerberg, Zurich, CH-8093, Switz.  
Verlag Helvetica Chimica Acta (2002), 85(9), 2577-2593  
CODEN: HCACAV; ISSN: 0018-019X  
PUBLISHER: Verlag Helvetica Chimica Acta  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:153820  
IT 496862-92-1P 496862-94-3P

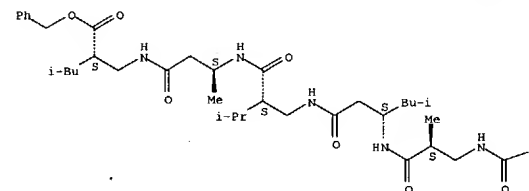
RL: PRP (Properties): SPN (Synthetic preparation); PREP (Preparation) (preparation and conformation of mixed (un)protected  $\beta$ -peptides with alternating  $\beta$ 2/ $\beta$ 3- or  $\beta$ 3/ $\beta$ 2-sequences by two-dimensional homonuclear 1H-NMR and CD)

RN 496862-92-1 CAPLUS  
CN  $\beta$ -Alanine, (2S)-N-[(3R)-3-[[[1,1-dimethylethoxy]carbonyl]amino]-4-methyl-1-oxopentyl]-2-methyl- $\beta$ -alanyl-(3S)-3-amino-5-methylhexanoyl-(2S)-2-(1-methylethyl)- $\beta$ -alanyl-(3S)-3-aminobutanoyl-2-(2-methylpropyl)-, phenylmethyl ester, (2S)- (9CI) (CA INDEX NAME)

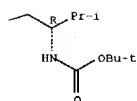
Absolute stereochemistry.

L14 ANSWER 208 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B



RN 496862-94-3 CAPLUS  
CN 4,8,12,16,20,24,28,32-Octaazaheptatriacontanoic acid, 35-amino-6,19,30,36-tetramethyl-11,22-bis(1-methylethyl)-3,14,27-tris(2-methylpropyl)-5,9,13,17,21,25,29,33-octaoso-, (3S,6S,11R,14S,19S,22S,27S,30S,35R)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

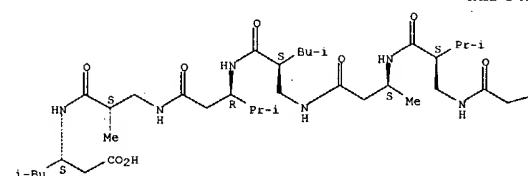
CM 1

CRN 496862-93-2  
CMF C51 H95 N9 O10

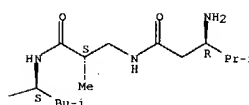
Absolute stereochemistry.

L14 ANSWER 208 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B



CM 2

CRN 76-05-1  
CMF C2 H F3 O2



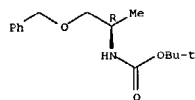
REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L14 ANSWER 209 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
AB

ADDITION OF ORGANOMETALLIC REAGENTS TO  
O-(1-PHENYLBUTYL)BENZYL OXYACETALDOXIME  
in the presence of boron trifluoride di-Et etherate is highly  
diastereoselective; the resulting hydroxylamines are readily converted  
into protected 1,2-amino alcs. and 2-hydroxymethyl nitrogen heterocycles,  
including the imino sugar 1,4-dideoxy-1,4-imino-D-ribose, in high  
enantioselective excess.

ACCESSION NUMBER: 2002:805157 CAPLUS  
DOCUMENT NUMBER: 138:237842  
TITLE: O-(1-Phenylbutyl)benzyl oxyacetaldoxime, a versatile  
reagent for the asymmetric synthesis of protected  
1,2-amino alcohols and 2-hydroxymethyl nitrogen  
heterocycles  
AUTHOR(S): Cooper, Tracey S.; Larigo, Alexander S.; Laurent,  
Pierre; Moody, Christopher J.; Takle, Andrew K.  
CORPORATE SOURCE: School of Chemistry, University of Exeter, Exeter,  
EX4  
SOURCE: 4QD, UK  
SYNLETT (2002), (10), 1730-1732  
CODEN: SYNLES; ISSN: 0936-5214  
PUBLISHER: Georg Thieme Verlag  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:237842  
IT 502162-48-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
[O-(1-phenylbutyl)benzyl oxyacetaldoxime as a versatile reagent for the  
asym. synthesis of protected 1,2-amino alcs. and 2-hydroxymethyl  
nitrogen heterocycles]  
RN 502162-48-3 CAPLUS  
CN Carbamic acid, [(1R)-1-methyl-2-(phenylmethoxy)ethyl]-, 1,1-dimethylethyl  
ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR  
THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

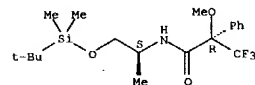
L14 ANSWER 211 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN

AB THE REVERSAL OF THE RELATIVE POSITION OF 1H NMR SIGNALS OBSERVED FOR  
DIASTEREOMERIC MTPA ESTERS AND AMIDES UPON ADDITION OF La(hfaa)3 (hfaa =  
hexafluoroacetylacetate) CAN BE USED FOR VERIFICATION OF THE VALIDITY  
OF

the correlation model employed in the modified Mosher's method. This  
verification extends the scope of the determination of absolute  
configurations using  
the Mosher method to substrates having only a few proton probes.  
ACCESSION NUMBER: 2002:769202 CAPLUS  
DOCUMENT NUMBER: 138:153173  
TITLE: Use of a diamagnetic lanthanide complex for extending  
the scope of NMR determination of absolute  
configuration by the modified Mosher's method  
AUTHOR(S): Omata, Kenji; Fujiwara, Tomoya; Kabuto, Kuninobu  
CORPORATE SOURCE: Graduate School of Science, Department of Chemistry,  
Tohoku University, Aoba-ku, Sendai, 980-8578, Japan  
SOURCE: Tetrahedron: Asymmetry (2002), 13(15), 1655-1662  
CODEN: TASYE3; ISSN: 0957-4166  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:153173  
IT 495373-87-0P 495373-88-1P

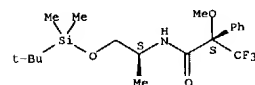
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(use of a diamagnetic lanthanide complex for extending the scope of  
NMR  
determination of absolute configuration by the modified Mosher's  
method)  
RN 495373-87-0 CAPLUS  
CN Benzeneacetamide, N-[(1S)-2-[(1,1-dimethylethyl)dimethylsilyloxy]-1-  
methylethyl]-α-methoxy-α-(trifluoromethyl)-, (αS)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



RN 495373-88-1 CAPLUS  
CN Benzeneacetamide, N-[(1S)-2-[(1,1-dimethylethyl)dimethylsilyloxy]-1-  
methylethyl]-α-methoxy-α-(trifluoromethyl)-, (αS)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR

Page 26

L14 ANSWER 210 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN

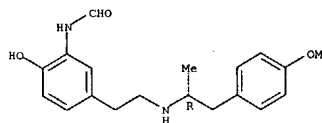
AB THE DEVELOPMENT AND LARGE-SCALE IMPLEMENTATION OF A NOVEL TECHNOL.  
UTILIZING POLYMORPHIC INTERCONVERSION AND CRYSTALLINE INTERMEDIATE  
FORMATION OF  
(R,R)-FORMOTEROL L-TARTRATE (I) AS A TOOL FOR THE REMOVAL OF IMPURITIES  
FROM THE FINAL PRODUCT AND GENERATION OF THE MOST THERMODYNAMICALLY  
STABLE

crystal form is reported. The crude product was generated by  
precipitation of the  
free base as the L-tartrate salt in a unique polymorphic form, form B.  
Warming the resultant slurry effected the formation of a partially  
hydrated stable crystalline intermediate, form C, with a concomitant  
decrease  
in the impurity levels in the solid. Isolation and recrystn. of form C  
provided I in the thermodynamically most stable polymorph, form A.

ACCESSION NUMBER: 2002:779218 CAPLUS  
DOCUMENT NUMBER: 138:16525  
TITLE: Taking Advantage of Polymorphism To Effect an  
Impurity  
Removal: Development of a Thermodynamic Crystal Form  
of (R,R)-Formoterol Tartrate  
AUTHOR(S): Tanoury, Gerald J.; Hett, Robert; Kessler, Donald W.;  
Wald, Stephen A.; Senanayake, Chris H.  
CORPORATE SOURCE: Chemical Research and Development, Sepracor Inc.,  
Marlborough, MA, 01752, USA  
SOURCE: Organic Process Research & Development (2002), 6(6),  
855-862  
CODEN: OPRDFK; ISSN: 1083-6160  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

IT 477552-93-5  
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)  
(formoterol impurity; development of thermodyn. crystal form of  
formoterol tartrate in relation to polymorphism)  
RN 477552-93-5 CAPLUS  
CN Formamide, N-[2-hydroxy-5-[2-[(1R)-2-(4-methoxyphenyl)-1-  
methylethyl]amino]ethyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR  
THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

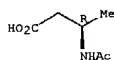
L14 ANSWER 211 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L14 ANSWER 212 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB A new diphosphine ligand bearing a hydroxy group in the backbone was synthesized starting from 9-bromocamphor. The rhodium(I) complex based on this ligand was tested in the hydrogenation of  $\alpha$ - and  $\beta$ -amino acid precursors. The activity and selectivity of the catalyst were found to be strongly dependent upon the nature of the substrate. Thus,  $\beta$ -acetyl amino carboxylates were obtained with up to 97% ee.

ACCESSION NUMBER: 2002:769196 CAPLUS  
 DOCUMENT NUMBER: 138:170488  
 TITLE: A new hydroxydiphosphine as a ligand for Rh(I)-catalyzed enantioselective hydrogenation  
 AUTHOR(S): Komarov, Igor V.; Monsees, Axel; Kadyrov, Renat; Fischer, Christine; Schmidt, Ute; Börner, Armin  
 CORPORATE SOURCE: Institut für Organische Katalyseforschung an der Universität Rostock e.V., Rostock, D-18055, Germany  
 SOURCE: Tetrahedron: Asymmetry (2002), 13(15), 1615-1620  
 CODEN: TASYE3; ISSN: 0957-4166  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:170488  
 IT 497262-06-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and use of hydroxydiphosphine ligand for Rh(I)-catalyzed enantioselective hydrogenation in preparation of amino acids)  
 RN 497262-06-3 CAPLUS  
 CN Butanoic acid, 3-(acetyl amino)-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

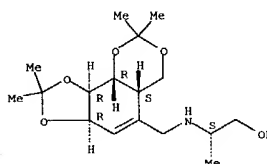


REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L14 ANSWER 213 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB A novel approach, which features a stereoselective 6-exo-dig radical cyclization and a palladium-catalyzed allylic amination, permits a six steps synthesis of aminocyclitol analogs from D-mannose.

ACCESSION NUMBER: 2002:769061 CAPLUS  
 DOCUMENT NUMBER: 138:187989  
 TITLE: A combined, 6-exo-dig radical cyclization-palladium catalyzed allylic amination, approach to aminocyclitol analogs: synthesis of novel N-substituted aminocyclitols from D-mannose  
 AUTHOR(S): Gomez, Ana M.; Moreno, Eduardo; Valverde, Serafin; Lopez, J. Cristobal  
 CORPORATE SOURCE: C.S.I.C., Instituto de Química Organica General, Madrid, 28006, Spain  
 SOURCE: Tetrahedron Letters (2002), 43(44), 7863-7866  
 CODEN: TELEAY; ISSN: 0040-4039  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:187989  
 IT 498555-18-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of aminocyclitol analogs via stereoselective radical cyclization and palladium catalyzed allylic amination as the key steps)  
 RN 498555-18-3 CAPLUS  
 CN 1-Propanol, 2-[[[(3aR,5aS,9aR,9bR)-3a,5a,9a,9b-tetrahydro-2,2,8,8-tetramethyl-6H-1,3-dioxolo[4,5-h][1,3]benzodioxin-5-yl)methyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

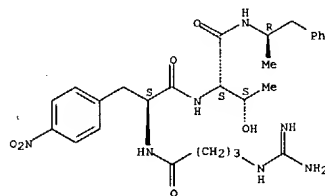


REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L14 ANSWER 214 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB A series of retro-binding inhibitors of human  $\alpha$ -thrombin was prepared to elucidate structure-activity relationships (SAR) and optimize in vivo performance. Compds. 9 and 11, orally active inhibitors of thrombin catalytic activity, were identified to be efficacious in a thrombin-induced lethality model in mice.

ACCESSION NUMBER: 2002:767310 CAPLUS  
 DOCUMENT NUMBER: 138:378532  
 TITLE: Retro-Binding thrombin active site inhibitors: identification of an orally active inhibitor of thrombin catalytic activity  
 AUTHOR(S): Iwanowicz, Edwin J.; Kimball, S. David; Lin, James; Lau, Wan F.; Han, W.-C.; Wang, Tammy C.; Roberts, Daniel G. M.; Schumacher, W. A.; Ogletree, Martin L.; Seiler, Steven M.  
 CORPORATE SOURCE: Bristol-Myers Squibb Pharmaceutical Research Institute, Princeton, NJ, 08543-4000, USA  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(21), 3183-3186  
 CODEN: BMCLER; ISSN: 0960-894X  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 526223-46-1P  
 RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (retro-binding orally active inhibitors of human  $\alpha$ -thrombin preparation and structure-activity relationship)  
 RN 526223-46-1 CAPLUS  
 CN L-Allothreoninamide, N-[4-[(aminoiminomethyl)amino]-1-oxobutyl]-4-nitro-L-phenylalanyl-N-[(1R)-1-methyl-2-phenylethyl]- (9CI) (CA INDEX NAME)

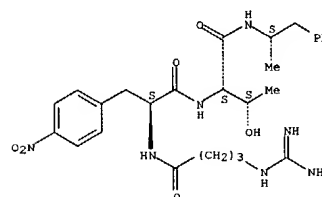
Absolute stereochemistry.



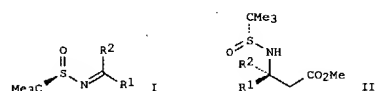
IT 526223-47-2P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (retro-binding orally active inhibitors of human  $\alpha$ -thrombin preparation and structure-activity relationship)  
 RN 526223-47-2 CAPLUS

L14 ANSWER 214 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
 CN L-Allothreoninamide, N-[4-[(aminoiminomethyl)amino]-1-oxobutyl]-4-nitro-L-phenylalanyl-N-[(1S)-1-methyl-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT



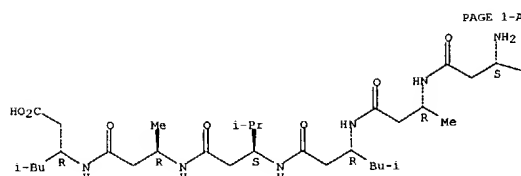
AB Addition of ClTi(OPr-i)3 ester enolates to tert-butanefulfinyl aldimines  
and

ketimines provided substituted  $\beta$ -amino acid derivs in high yields and with high diastereoselectivities. For example, the addition of tert-butanefulfinylimine I (R1 = Me, i-Pr, i-Bu, Ph, 3-pyridyl; R2 = H, Me) to MeCO2Me in the presence of ClTi(OPr-i)3 and LDA in THF at -78° gave  $\beta$ -(tert-butanefulfinylamino) acid esters II in yields > 70% and with diastereoselectivities > 95%. The N-sulfinyl- $\beta$ -amino ester products were further employed as versatile reactants for both standard solution-phase and solid-phase synthetic transformations, such as the synthesis of  $\beta$ -peptides.

ACCESSION NUMBER: 2002:760624 CAPLUS  
DOCUMENT NUMBER: 138:14170  
TITLE: Asymmetric Synthesis of  $\beta$ -Amino Acid Derivatives Incorporating a Broad Range of Substitution Patterns by Enolate Additions to tert-Butanesulfinyl Imines  
Tang, Tony P.; Ellman, Jonathan A.  
AUTHOR(S):  
CORPORATE SOURCE: Center for New Directions in Organic Synthesis and the Department of Chemistry, University of California, Berkeley, CA, 94720-1460, USA  
SOURCE: Journal of Organic Chemistry (2002), 67(22),  
7819-7832  
CODEN: JOCEAH; ISSN: 0022-3263  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:14170  
IT 477587-00-1P 477587-01-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(asym. preparation of tert-butanefulfinyl-protected  $\beta$ -amino acids as intermediates for peptide synthesis)  
RN 477587-00-1 CAPLUS  
CN 4,8,12,16,20-Pentazapentacosanoic acid,  
23-amino-7,19,24-trimethyl-11-(1-methylethyl)-3,15-bis(2-methylpropyl)-5,9,13,17,21-pentaoxo-,  
(3R,7R,11S,15R,19R,23S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



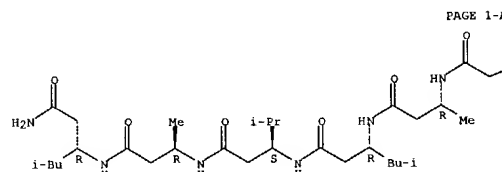
PAGE 1-A

PAGE 1-B

Pr-i

RN 477587-01-2 CAPLUS  
CN 4,8,12,16,20-Pentazapentacosanamide, 23-amino-7,19,24-trimethyl-11-(1-methylethyl)-3,15-bis(2-methylpropyl)-5,9,13,17,21-pentaoxo-,  
(3R,7R,11S,15R,19R,23S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-A

PAGE 1-B

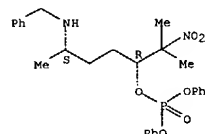


REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

AB A series of highly diastereomerically enriched 1,5-dimethyl-, 2,5-dimethyl-, and 3,5-dimethyl-N-benzyl-5-nitro-4-(diphenylphosphatoxy)hexylamines were exposed to tributyltin hydride and AIBN in benzene at reflux. The ensuing reactions, interpreted in terms of radical denitration, radical ionic fragmentation, and nucleophilic substitution, lead to the formation of pyrrolidines with moderate to high diastereoselectivity. In five out of the six cases, the diastereoselectivity is best interpreted by backside attack by the amine on the initial contact ion pair generated by radical ionic fragmentation. In the exception that proves the rule, this mode of attack is disfavored by 1,3A strain in the initial contact ion pair, resulting in equilibration and subsequent attack on the opposite face.

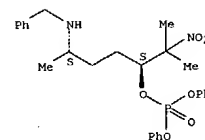
ACCESSION NUMBER: 2002:737852 CAPLUS  
DOCUMENT NUMBER: 138:24610  
TITLE: Diastereoselectivity in the Cyclization of Alkene Radical Cations Generated under Non-Oxidizing Conditions: Contact Ion Pairs and Memory Effects  
Crich, David; Ranganathan, Krishnakumar  
AUTHOR(S):  
CORPORATE SOURCE: Department of Chemistry, University of Illinois at Chicago, Chicago, IL, 60607-7061, USA  
SOURCE: Journal of the American Chemical Society (2002), 124(42), 12422-12423  
CODEN: JACSAT; ISSN: 0002-7863  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:24610  
IT 477952-53-7P 477952-54-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(contact ion pairs, memory effects, and diastereoselectivity in cyclization of alkene radical cations to pyrrolidine derivs.)  
RN 477952-53-7 CAPLUS  
CN Phosphoric acid, (1R,4S)-1-(1-methyl-1-nitroethyl)-4-((phenylmethyl)amino)pentyl diphenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



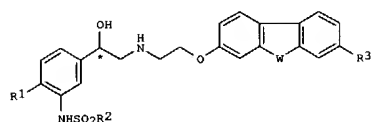
RN 477952-54-8 CAPLUS  
CN Phosphoric acid, (1S,4S)-1-(1-methyl-1-nitroethyl)-4-((phenylmethyl)amino)pentyl diphenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

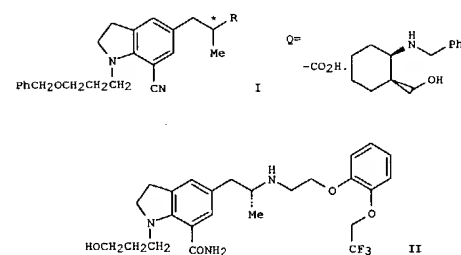
L14 ANSWER 217 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN  
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AB Disclosed are remedies for fatty liver containing the title compds.,  
e.g. (I);  
R1 = H, halo, OH; R2 = lower alkyl, benzyl; R3 = OR, halo, CF3, lower  
alkyl, lower acyl, NR4R4', NO2, cyano (wherein R = H, lower alkyl,  
benzyl,  
optionally substituted lower acyl; R4, R4' = H, lower alkyl, lower acyl,  
benzyl, SO2R5; wherein R5 = lower alkyl, benzyl); W = O, NH, S; \* denotes  
an asym. carbon atom having a  $\beta$ -agonistic activity.  
(R)-N-[5-[2-[2-(dibenzothiofen-3-yloxy)ethylamino]-1-hydroxyethyl]-2-  
hydroxyphenyl]methanesulfonamide hydrochloride and (R)-N-[5-[2-[2-(5H-  
carbazol-2-yloxy)ethylamino]-1-hydroxyethyl]-2-  
hydroxyphenyl]methanesulfonamide hydrochloride at 1 mg/kg per day for 4  
wk  
lowered the triglyceride per unit of fatty liver in rat by 25 and 23%,  
resp.  
ACCESSION NUMBER: 2002:736110 CAPLUS  
DOCUMENT NUMBER: 137:262950  
TITLE: Preparation of carbazole, dibenzothiofen, and  
dibenzofuran derivatives as remedies for fatty liver  
Umeno, Hiroshi; Kobayashi, Teruki  
INVENTOR(S): Asahi Kasei Kabushiki Kaisha, Japan  
PATENT ASSIGNEE(S): PCT Int. Appl., 71 pp.  
SOURCE: CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2002074306   | A1   | 20020926 | WO 2002-JP2486  | 20020315 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| PRIORITY APPLN. INFO.: JP 2001-77407 A 20010319   |      |          |                 |          |
| OTHER SOURCE(S): MARPAT 137:262950  |      |          |                 |          |

L14 ANSWER 218 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN  
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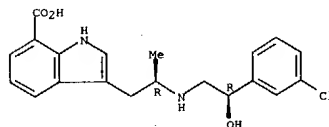


AB The title compds. (I; R = CO2H, CONH2, NH2; Q: the carbon atom denoted by  
\* represents the carbon atom with R or RS configuration: provided that  
the  
carbon atom denoted by \* represents the carbon atom with R configuration,  
R is CO2H) are prepared. These compds. are useful as intermediates for  
(R)-1-(3-hydroxypropyl)-5-[2-[2-(2,2,2-trifluoroethoxy)phenoxy]ethylami-  
no]propylindoline-7-carboxamide (II) which possesses selective smooth  
muscle relaxant activity for urinary tract and little effect on blood  
pressure and is useful as a therapeutic agent for dysuria. Thus, 2.00 g  
3-[1-(3-benzoyloxypropyl)-7-cyanoindolin-5-yl]-2-methylpropionic acid  
(III)  
and 11.6 g (1S,2R)-cis-(+)-2-benzylaminocyclohexanemethanol (IV) were  
dissolved in 100 mL EtOAc with heating, stirred with 1.0 g activated  
charcoal at room temperature for 30 min, and filtered. To the filtrate  
was  
added portionwise 100 mL hexane, followed by seeding with a diastereomer  
salt prepared sep., and the resulting mixture was stirred overnight at  
room  
temperature and filtered to give, after washing the crystals with  
hexane/EtOAc  
(2/1) and drying at 50 ° for 3 h, the diastereomer salt (13.4 g).  
The diastereomer salt was recrystd. from hexane/EtOAc to give 5.99 g  
(R)-III-IV (92.8% ee) which (5.00 g) was stirred with 50 mL 1 M aqueous  
HCl  
and 50 mL EtOAc for 1 h and the EtOAc layer was separated, washed  
with aqueous  
NaCl, and dried over anhydrous Na2SO4, followed by distilling off the  
solvent to  
give 3.20 g (R)-III (91.8% ee). To a solution of 3.00 g (R)-III in MeCN  
was  
added 2.57 g 1,1'-carbonyldiimidazole and stirred at room temperature  
overnight,

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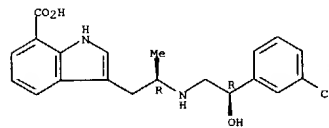
L14 ANSWER 217 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)  
IT 461696-23-3 461696-29-7P  
RI: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(preparation of carbazole, dibenzothiofen, and dibenzofuran derivs.  
having  
 $\beta$ -agonistic activity as remedies for fatty liver)  
RN 461696-23-3 CAPLUS  
CN 1H-indole-7-carboxylic acid, 3-[(2R)-2-[(2R)-2-(3-chlorophenyl)-2-  
hydroxyethyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 461696-29-7 CAPLUS  
CN 1H-indole-7-carboxylic acid, 3-[(2R)-2-[(2R)-2-(3-chlorophenyl)-2-  
hydroxyethyl]amino]propyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



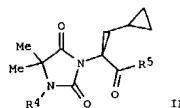
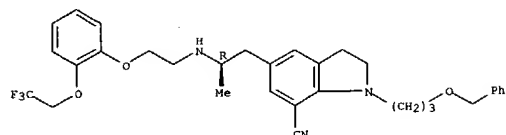
● HCl

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR  
THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L14 ANSWER 218 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)  
treated with a satd. NH3 soln. in MeCN (20 mL), sealed, and stirred  
overnight to give 2.83 g  
(R)-3-[1-(3-benzoyloxypropyl)-7-cyanoindolin-5-yl]-  
2-methylpropionamide (V). To a soln. of 1.00 g V in 15 mL isopropanol  
was  
added 14 mL 15% aq. NaOCl at room temp., followed by adding 7 mL 2 M aq.  
NaOH under ice-cooling, and the resulting mixt. was stirred at 40 °  
for 1 h to give 0.915 g (R)-5-(2-aminopropyl)-1-(3-  
benzoyloxypropyl)indoline-7-carbonitrile (VI). To a soln. of 0.80 g VI in  
8 mL tert-butanol were added 0.291 g Na2CO3 and 2-[2-(2,2,2-  
trifluoroethoxy)phenoxy]ethyl trifluoromethanesulfonate and refluxed  
overnight to give 0.564 g (R)-1-(3-benzoyloxypropyl)-5-[2-[2-(2,2,2-  
trifluoroethoxy)phenoxy]ethylamino]propylindoline-7-carbonitrile which  
(0.50 g) was dissolved in 5 mL MeCN, stirred at room temp. with 0.135 mL  
30% aq. H2O2 and 0.054 mL 5 M aq. NaOH overnight and then with 0.100 mL  
30% aq. H2O2 and 0.100 mL 5 M aq. NaOH for 5 h to give 0.391 g  
(R)-1-(3-benzoyloxypropyl)-5-[2-[2-(2,2,2-trifluoroethoxy)phenoxy]ethylami-  
no]propylindoline-7-carboxamide (VII). A soln. of 0.35 g VII in 3 mL  
ethanol was treated with 1.44 mL 1 M aq. HCl and 0.060 g 10% Pd-C and  
stirred under hydrogen atm. for 3 h to give 0.207 g II.  
ACCESSION NUMBER: 2002:708796 CAPLUS  
DOCUMENT NUMBER: 137:232552  
TITLE: Preparation of 1-(3-benzoyloxypropyl)-5-(2-substituted  
propyl)indolines as intermediates for drug for  
treating dysuria  
Yamaguchi, Toshiaki; Takeuchi, Hideki; Shiohara,  
Hiroaki  
INVENTOR(S): Kissei Pharmaceutical Co., Ltd., Japan  
PATENT ASSIGNEE(S): Jpn. Kokai Tokkyo Koho, 13 pp.  
SOURCE: CODEN: JKXAXF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| JP 2002265444  | A2   | 20020918 | JP 2001-65686   | 20010308 |
| PRIORITY APPLN. INFO.: JP 2001-65686   |      |          |                 |          |
| OTHER SOURCE(S): CASREACT 137:232552; MARPAT 137:232552  |      |          |                 |          |
| IT 459868-77-0P, (R)-1-(3-benzoyloxypropyl)-5-[2-[2-(2,2,2-<br>trifluoroethoxy)phenoxy]ethyl]amino]propylindoline-7-carbonitrile<br>RI: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT<br>(Reactant or reagent)<br>(preparation of 1-(3-benzoyloxypropyl)-5-(2-substituted<br>propyl)indolines as<br>intermediates for drug for treating dysuria)<br>RN 459868-77-0 CAPLUS<br>CN 1H-Indole-7-carbonitrile,<br>2,3-dihydro-1-[3-(phenylmethoxy)propyl]-5-[(2R)-<br>2-[[2-[2-(2,2,2-trifluoroethoxy)phenoxy]ethyl]amino]propyl]- (9CI) (CA<br>INDEX NAME) |      |          |                 |          |

Absolute stereochemistry.



AB Title compds., e.g., R1NHCONHCH2CH2CH2CONHCH2CH2CH2R3 [I: R = cyclopropylmethyl or CH2CHMe2; R1 = (2-methyl)phenyl; R2 = (un)substituted alkyl, -Ph, pyridinyl; R3 = CHO, CO2H, alkoxy, carbonyl, CH2OR7, etc.; R7 = H or alkyl; Z = 2-hydroxy or -(fluoro)alkoxy-1,4-phenylene; Z1 = 5,5-di(trifluoromethyl)-2,4-dioximidazolidine-1,3-diyl] were prepared. Thus, (S)-H2NCHRCO2CH2Ph (R = cyclopropylmethyl) (preparation given) was amidated by MeO2CNHMe2CO2H and the produced cyclized to give dioximidazolidine II (R4 = H, R5 = OH) which was N-alkylated by 4-[3-(2-methylphenyl)ureido]-3-methoxybenzyl chloride (preparation given) and the product amidated by (R)-H2NCHMeCH2CO2CMe3 to give, after saponification, II [R4 = 2-MeC6H4NHCONHCH2CH2, R5 = (R)-NHCHMeCH2CO2H, Z = 2-methoxy-1,4-phenylene]. Data for biol. activity of I were given.

ACCESSION NUMBER: 2002:695648 CAPLUS  
DOCUMENT NUMBER: 137:216951  
TITLE: Preparation of dioximidazolidinealkanoamides as VLA-4 receptor antagonists  
INVENTOR(S): Wehner, Volkmar; Blum, Horst; Ruetten, Hartmut; Stiltz, Hans Ulrich  
PATENT ASSIGNEE(S): Aventis Pharma Deutschland GmbH, Germany  
SOURCE: Ger. Offen., 42 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|---|------|----------|------------------|----------|
| DE 10111877   | A1   | 20020912 | DE 2001-10111877 | 20010310 |
| WO 2002072573   | A1   | 20020919 | WO 2002-EP1917   | 20020223 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                  |          |
| RW: GW, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                  |          |

L14 ANSWER 219 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

EE 200300436 A 20031215 EE 2003-436 20020223  
EP 1373249 A1 20040102 EP 2002-700268 20020223

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2003073723 A1 20030417 US 2002-92901 20020308  
US 6680333 B2 20040120  
NO 2003003981 A 20030909 NO 2003-3981 20030909

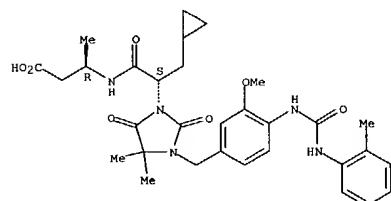
PRIORITY APPLN. INFO.: DE 2001-1011877 A 20010310  
WO 2002-EP1917 W 20020223

OTHER SOURCE(S): MARPAT 137:216951  
IT 457059-99-OP 457059-00-6P 457059-01-7P  
457059-02-8P 457059-03-9P 457059-04-0P  
457059-05-1P 457059-06-2P 457059-17-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

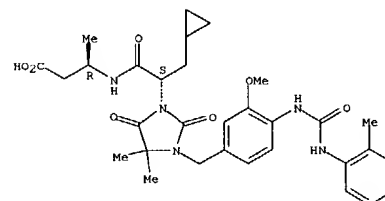
(preparation of dioximidazolidinealkanoamides as VLA-4 receptor antagonists)  
RN 457059-99-0 CAPLUS  
CN Butanoic acid, 3-[[[(2S)-3-cyclopropyl-2-[3-[[3-methoxy-4-[[[(2-methylphenyl)amino]carbonyl]amino]phenyl)methyl]-4,4-dimethyl-2,5-dioxo-1-imidazolidinyl]-1-oxopropyl]amino]-, (3R)- (9CI) (CA INDEX NAME)]

Absolute stereochemistry.



RN 457059-00-6 CAPLUS  
CN Butanoic acid, 3-[[[(2S)-3-cyclopropyl-2-[3-[[3-methoxy-4-[[[(2-methylphenyl)amino]carbonyl]amino]phenyl)methyl]-4,4-dimethyl-2,5-dioxo-1-imidazolidinyl]-1-oxopropyl]amino]-, monosodium salt, (3R)- (9CI) (CA INDEX NAME)]

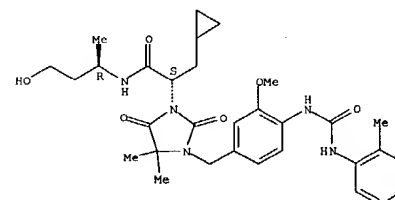
Absolute stereochemistry.



• Na

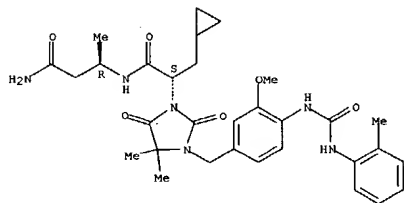
RN 457059-01-7 CAPLUS  
CN 1-Imidazolidineacetamide, α-(cyclopropylmethyl)-N-[(1R)-3-hydroxy-1-methylpropyl]-3-[[[3-methoxy-4-[[[(2-methylphenyl)amino]carbonyl]amino]phenyl)methyl]-4,4-dimethyl-2,5-dioxo-, (αS)- (9CI) (CA INDEX NAME)]

Absolute stereochemistry.



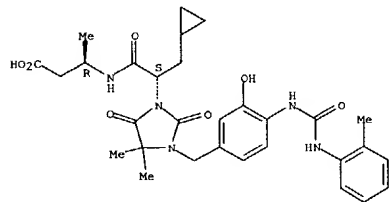
RN 457059-02-8 CAPLUS  
CN 1-Imidazolidineacetamide, N-[(1R)-3-amino-1-methyl-3-oxopropyl]-α-(cyclopropylmethyl)-3-[[[3-methoxy-4-[[[(2-methylphenyl)amino]carbonyl]amino]phenyl)methyl]-4,4-dimethyl-2,5-dioxo-, (αS)- (9CI) (CA INDEX NAME)]

Absolute stereochemistry.



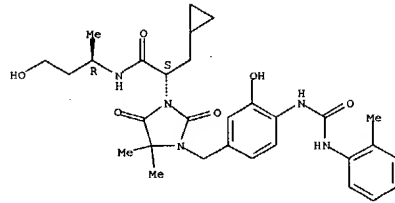
RN 457059-03-9 CAPLUS  
 CN Butanoic acid, 3-[[[(2S)-3-cyclopropyl-2-[3-[[3-hydroxy-4-[[[(2-methylphenyl)amino]carbonyl]amino]phenyl]methyl]-4,4-dimethyl-2,5-dioxo-1-imidazolidinyl]-1-oxopropyl]amino]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



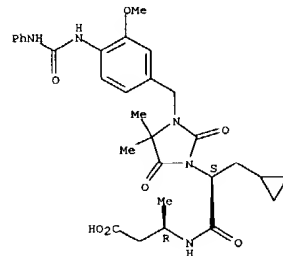
RN 457059-04-0 CAPLUS  
 CN 1-Imidazolidineacetamide, α-(cyclopropylmethyl)-3-[[3-hydroxy-4-[[[(2-methylphenyl)amino]carbonyl]amino]phenyl]methyl]-N-[(1R)-3-hydroxy-1-methylpropyl]-4,4-dimethyl-2,5-dioxo-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



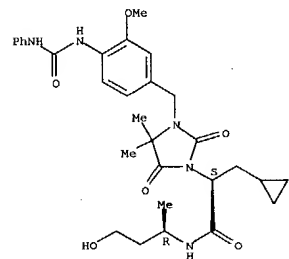
RN 457059-05-1 CAPLUS  
 CN Butanoic acid, 3-[[[(2S)-3-cyclopropyl-2-[3-[[3-methoxy-4-[[[(phenylamino)carbonyl]amino]phenyl]methyl]-4,4-dimethyl-2,5-dioxo-1-imidazolidinyl]-1-oxopropyl]amino]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



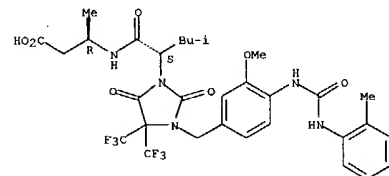
RN 457059-06-2 CAPLUS  
 CN 1-Imidazolidineacetamide, α-(cyclopropylmethyl)-N-[(1R)-3-hydroxy-1-methylpropyl]-3-[[3-methoxy-4-[[[(phenylamino)carbonyl]amino]phenyl]methyl]-4,4-dimethyl-2,5-dioxo-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 457059-17-5 CAPLUS  
 CN Butanoic acid, 3-[[[(2S)-3-cyclopropyl-2-[3-[[3-methoxy-4-[[[(2-methylphenyl)amino]carbonyl]amino]phenyl]methyl]-2,5-dioxo-4,4-bis(trifluoromethyl)-1-imidazolidinyl]-4-methyl-1-oxopentyl]amino]-, (3R)- (9CI) (CA INDEX NAME)

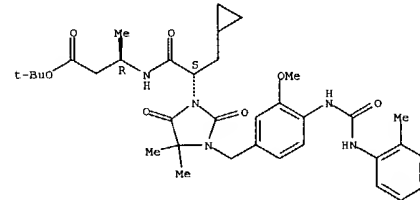
Absolute stereochemistry.



IT 457059-23-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of dioxoimidazolidinealkanoamides as VLA-4 receptor antagonists)

RN 457059-23-3 CAPLUS  
 CN Butanoic acid, 3-[[[(2S)-3-cyclopropyl-2-[3-[[3-methoxy-4-[[[(2-methylphenyl)amino]carbonyl]amino]phenyl]methyl]-4,4-dimethyl-2,5-dioxo-1-imidazolidinyl]-1-oxopropyl]amino]-, 1,1-dimethylethyl ester, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



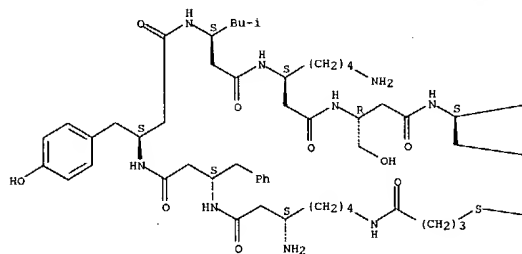
L14 ANSWER 220 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
AB A symposium report. Conformation anal. of a  $\beta$ -dodecapeptide was performed by two-dimensional homonuclear NMR spectroscopy in methanol and water.

ACCESSION NUMBER: 2002:692364 CAPLUS  
DOCUMENT NUMBER: 138:354198  
TITLE: NMR structural investigation of a  $\beta$ -dodecapeptide with proteinogenic side chains in MeOH and water  
AUTHOR(S): Etezady-Esfarjani, Touraj; Hilty, Christian; Wuehrich, Kurt; Rueping, Magnus; Seebach, Dieter  
CORPORATE SOURCE: Institut fuer Molekularbiologie und Biophysik, Eidgenossische Technische Hochschule, Zurich, CH-8093, Switz.  
SOURCE: Peptides: The Wave of the Future, Proceedings of the Second International and the Seventeenth American Peptide Symposium, San Diego, CA, United States, June 9-14, 2001 (2001), 312-313. Editor(s): Lebl, Michal; Houghten, Richard A. American Peptide Society: San Diego, Calif.  
CODEN: 69DBAL; ISBN: 0-9715560-0-8  
DOCUMENT TYPE: Conference  
LANGUAGE: English

IT 454486-18-1  
RL: PRP (Properties)  
(Conformations of a  $\beta$ -dodecapeptide in MeOH and water as analyzed by NMR spectroscopy)  
RN 454486-18-1 CAPLUS  
CN 5-Thia-3,10,18,22,26,30,34,38,42,46,50,54,58-tridecaazahexacontan-61-oic acid,  
15-amino-31,39,55-tris(4-aminobutyl)-35,47-bis(hydroxymethyl)-23-  
[(4-hydroxyphenyl)methyl]-59-methyl-51-(1-methylethyl)-27-(2-methylpropyl)-  
2,9,17,21,25,29,33,37,41,45,49,53,57-tridecaoxo-19,43-bis(phenylmethyl)-,  
(15S,19S,23S,27S,31S,35R,39S,43S,47R,51R,55S,59S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

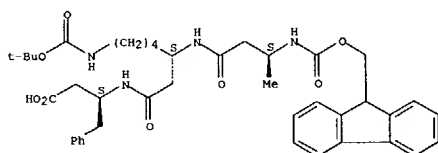


L14 ANSWER 221 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
AB A symposium report. An improved synthetic methodol. for the solid-phase synthesis of long-chain  $\beta$ -peptides is described. The method was tested by synthesizing dodecapeptide and tetracosapeptide by coupling single amino acids and a series of homologous peptides by coupling  $\beta$ -peptidic triads.  $\beta$ -Tripeptide precursor Fmoc-( $\beta$ -Hala- $\beta$ -Hlys(Boc)- $\beta$ -HPhe)-OH was synthesized in eight steps from the corresponding  $\alpha$ -amino acids with an overall yield of 60%.

ACCESSION NUMBER: 2002:692347 CAPLUS  
DOCUMENT NUMBER: 138:321541  
TITLE: Recent advances in the solid-phase synthesis of long-chain  $\beta$ -peptides  
AUTHOR(S): Frackenhof, Jens; Schreiber, Juerg V.; Arvidsson, Per  
CORPORATE SOURCE: I., Seebach, Dieter  
Laboratorium fuer Organische Chemie der Eidgenossischen Technischen Hochschule, Zurich, CH-8092, Switz.  
SOURCE: Peptides: The Wave of the Future, Proceedings of the Second International and the Seventeenth American Peptide Symposium, San Diego, CA, United States, June 9-14, 2001 (2001), 275-276. Editor(s): Lebl, Michal; Houghten, Richard A. American Peptide Society: San Diego, Calif.  
CODEN: 69DBAL; ISBN: 0-9715560-0-8  
DOCUMENT TYPE: Conference  
LANGUAGE: English

IT 514223-57-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(solid-phase synthesis of long-chain  $\beta$ -peptides)  
RN 514223-57-5 CAPLUS  
CN 14-Oxa-2,6,12-triazaheptadecanoic acid, 7-[2-[(1S)-1-(carboxymethyl)-2-phenylethylamino]-2-oxoethyl]-3,15,15-trimethyl-5,13-dioxo-, 1-(9H-fluoren-9-ylmethyl) ester, (3S,7S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

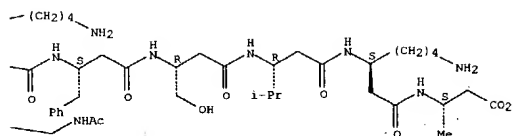


REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L14 ANSWER 220 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

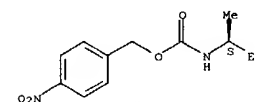
FORMAT

L14 ANSWER 222 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
AB 1,2,4-Dithiazolidine-3,5-dione can be used as a nitrogen nucleophile in a modified Mitsunobu procedure to give N-alkylated products which can be converted via isocyanates, into amine derivs., under very mild conditions.

For example, the reaction of 1,2,4-dithiazolidine-3,5-dione with (2R)-2-butanol 2-[(1S)-1-methylpropyl]-1,2,4-dithiazolidine-3,5-dione (I) with inversion at the chiral center. Treatment of I with 4-nitrobenzenemethanol in the presence of triphenylphosphine/methylbenzene gave [(1S)-1-methylpropyl]carbamate 4-nitrophenyl ester via an intermediate isocyanate.

ACCESSION NUMBER: 2002:687922 CAPLUS  
DOCUMENT NUMBER: 138:238082  
TITLE: 1,2,4-Dithiazolidine-3,5-dione as an isocyanate equivalent in the Mitsunobu reaction  
AUTHOR(S): Wood, Mark E.; Cane-Honeysett, Daniel J.; Dowle, Michael D.  
CORPORATE SOURCE: School of Chemistry, University of Exeter, Exeter, EX4  
SOURCE: 4QD, UK  
Journal of the Chemical Society, Perkin Transactions 1  
(2002), (18), 2046-2047  
CODEN: JCSPEC; ISSN: 1472-7781  
PUBLISHER: Royal Society of Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:238082  
IT 501675-47-4P 501675-48-5P 501675-51-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(1,2,4-dithiazolidine-3,5-dione as isocyanate equivalent in Mitsunobu reaction of alcs.)  
RN 501675-47-4 CAPLUS  
CN Carbamic acid, [(1S)-1-methylpropyl]-, (4-nitrophenyl)methyl ester (9CI) (CA INDEX NAME)

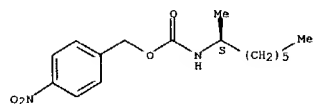
Absolute stereochemistry.



RN 501675-48-5 CAPLUS  
CN Carbamic acid, [(1S)-1-methylheptyl]-, (4-nitrophenyl)methyl ester (9CI) (CA INDEX NAME)

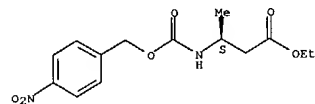
Absolute stereochemistry.



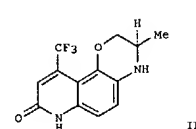
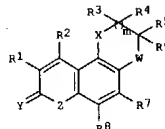


RN 501675-51-0 CAPLUS  
CN Butanoic acid, 3-([(4-nitrophenyl)methoxy]carbonyl)amino-, ethyl ester, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



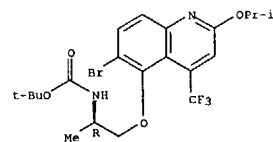
AB Title compds. I [R1 = H, F, Cl, Br, I, NO2, etc.; R2 = H, F, Cl, Br, I, CF3, CF2Cl, CF2H, etc.; R3-4 = H, alkoxy, SOO-2, amino, alkyl, haloalkyl, heteroalkyl, cycloalkyl, aryl, arylalkyl, heteroaryl, alkynyl, etc., or R3-4 taken together form a 3-8 membered (un)saturated (hetero)cyclic ring or R3, R5 taken together form a 3-8 membered (un)saturated ring or R3, R6 taken together form a 3-8 membered (un)saturated ring; R5-6 = H, CF3, CF2Cl, CF2H, alkyl, haloalkyl, heteroalkyl, cycloalkyl, aryl, arylalkyl, heteroaryl, alkynyl, alkenyl, etc.; R7 = H, F, Cl, Br, I, alkyl, haloalkyl, heteroalkyl, aryl, heteroaryl, alkoxy, etc.; R8 = H, F, Cl, Br, I, alkyl, haloalkyl, heteroalkyl, aryl, heteroaryl, alkoxy, etc.; m = 0-2; W = O, SOO-2, NH, alkyl, etc.; X, Z = O, SOO-2, NH, etc.; Y = O, S, N(H, alkyl, etc.), etc.] were prepared. Over 50 synthetic examples were provided. For instance, 5-chloro-1,3-phenylenediamine was reacted with 4,4,4-trifluoroacetate in EtOH at reflux for 18 h to give 5-Amino-7-chloro-3,4-dihydro-4-hydroxy-4-(trifluoromethyl)-1H-quinolin-2-one (37%). This was reduced (EtOH, KOAc, 10% Pd/C-H2, 2 h) to give 5-Amino-3,4-dihydro-4-hydroxy-4-(trifluoromethyl)-1H-quinolin-2-one (100%). This substrate was then subjected to the following reaction sequence: i. NaNO2/H2SO4; ii. EtOAc, 1-PnNH2, NBS; iii. DMF, BnBr, CsF; iv. MeOH, HOAc; v. THF, NMM, Ph3P, DIAD, (R)-Boc-alinol; vi. CH2Cl2, TFA; vii. PhMe, Pd(O) Ligand, NaOBu-t; viii. HOAc, HCl, 90°, 4 h to give II. I are agonists, partial agonists and/or antagonists for androgen receptors (AR).

ACCESSION NUMBER: 2002:676021 CAPLUS  
DOCUMENT NUMBER: 137:201318  
TITLE: Preparation of tricyclic quinolinone androgen receptor modulator compounds  
INVENTOR(S): Higuchi, Robert I.; Zhi, Lin; Karanewsky, Donald S.; Thompson, Anthony W.; Caferro, Thomas R.; Mani, Neelakandha S.; Chen, Jyun-Rung; Cummings, Marquis L.;  
Edwards, James P.; Adams, Mark E.; Deckhut, Charlotte L. F.  
PATENT ASSIGNEE(S): Ligand Pharmaceuticals Incorporated, USA  
SOURCE: PCT Int. Appl., 142 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent

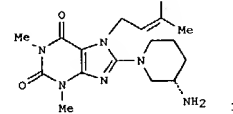
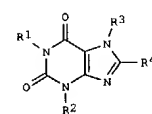
| PATENT NO.            | KIND   | DATE     | APPLICATION NO. | DATE       |
|-----------------------|--|----------|-----------------|------------|
| WO 2002068427         | A1   | 20020906 | WO 2002-18538   | 20020223   |
| W:                    | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |            |
| RW:                   | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |            |
| US 2002183314         | A1   | 20021205 | US 2002-80503   | 20020222   |
| EP 1368357            | A1   | 20031210 | EP 2002-702590  | 20020223   |
| R:                    | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |          |                 |            |
| PRIORITY APPL. INFO.: |  |          | US 2001-271115P | P 20010223 |
|                       |  |          | WO 2002-18538   | W 20020223 |

OTHER SOURCE(S): MARPAT 137:201318  
IT 454169-38-1P, (2R)-6-Bromo-5-[2-((tert-butoxycarbonyl)amino)propoxy]-2-isopropoxy-4-(trifluoromethyl)quinoline R1: RCT (Reactant); SPW (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (Intermediate: preparation of tricyclic quinolinone androgen receptor modulator compds.)  
RN 454169-38-1 CAPLUS  
CN Carbamic acid, [(1R)-2-[[6-bromo-2-[(1-methylethoxy)-4-(trifluoromethyl)-5-quinolinyl]oxy]-1-methylethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



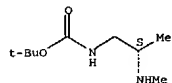
AB Xanthine derivs. of formula I [R1, R2 = H, alkyl, alkenyl, etc.; R3 = alkyl, arylalkyl, etc.; R4 = heterocyclyl, cycloalkyl, aminoalkyl, etc.] are prepared which exhibit an inhibitory effect on the activity of the dipeptidylpeptidase-IV enzyme. Pharmaceutical compns. containing I are described. Thus, II was prepared and had an IC50 of 22 nM against dipeptidylpeptidase-IV.

ACCESSION NUMBER: 2002:676018 CAPLUS  
DOCUMENT NUMBER: 137:216824  
TITLE: Preparation of xanthine derivatives as dipeptidylpeptidase-IV inhibitors  
INVENTOR(S): Himmelsbach, Frank; Mark, Michael; Eckhardt, Matthias;  
Langkopf, Elke; Maier, Roland; Lotz, Ralf  
PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany  
SOURCE: PCT Int. Appl., 373 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.    | KIND   | DATE     | APPLICATION NO.  | DATE     |
|---------------|--|----------|------------------|----------|
| WO 2002068420 | A1   | 20020906 | WO 2002-EP1820   | 20020221 |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                  |          |
| RW:           | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                  |          |
| DE 10109021   | A1   | 20020905 | DE 2001-10109021 | 20010224 |
| DE 10117803   | A1   | 20021024 | DE 2001-10117803 | 20010410 |
| DE 10140345   | A1   | 20030227 | DE 2001-10140345 | 20010817 |
| DE 10203486   | A1   | 20030731 | DE 2002-10203486 | 20020130 |
| EP 1368349    | A1   | 20031210 | EP 2002-701288   | 20020221 |
| R:            | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |          |                  |          |
| EE 200300409  | A  | 20031215 | EE 2003-409      | 20020221 |
| BR 2002007767 | A  | 20040330 | BR 2002-7767     | 20020221 |

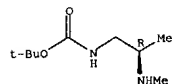
L14 ANSWER 224 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)  
 NO 2003003726 A 20030821 NO 2003-3726 20030821  
 US 2004077645 AI 20040422 US 2003-467961 20031205  
 PRIORITY APPLN. INFO.: DE 2001-10109021 A 20010224  
 DE 2001-10117803 A 20010410  
 DE 2001-10140345 A 20010817  
 DE 2002-10203486 A 20020130  
 WO 2002-EP1820 W 20020221  
 OTHER SOURCE(S): MARPAT 137:216824  
 IT 454709-95-6P 454709-96-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of xanthine derivs. as dipeptidylpeptidase-IV inhibitors)  
 RN 454709-95-6 CAPLUS  
 CN Carbamic acid, [(2S)-2-(methylamino)propyl]-, 1,1-dimethylethyl ester  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 454709-96-7 CAPLUS  
 CN Carbamic acid, [(2R)-2-(methylamino)propyl]-, 1,1-dimethylethyl ester  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L14 ANSWER 225 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN  
 AB Toward designing nonbiol. polymers that fold into predictable tertiary  
 structures, we report a "B-oligomer" composed of  $\beta$ -amino acids  
 that adopts a cooperatively folded structure. We have computationally  
 designed a C2-sym. pair of interacting 14-helical  $\beta$ -oligomers  
 stabilized via long-range interhelical interactions and stapled together  
 by a disulfide bond. The reduced (BHBred) and oxidized (BHBox) forms of  
 the synthetic  $\beta$ -oligomer represent the individual isolated helices  
 and the two-helix bundle, resp. We also prepared a third monomeric  
 synthetic  $\beta$ -oligomer (BHBmon) to avoid inadvertent disulfide  
 formation during characterization. CD spectroscopy revealed that BHBox  
 showed a 2-fold increase in secondary structure, relative to the  
 monohelical controls, BHBred and BHBmon. Further, BHBox showed a  
 sigmoidal  
 thermal unfolding curve with a per-residue van't Hoff enthalpy of approx.  
 0.7 kcal/(mol·residue), analogous to folded proteins. In contrast,  
 BHBmon shows a broad thermal transition, typical of multistate unfolding  
 for monomeric helices. Also, anal. ultracentrifugation showed that BHBmon  
 and BHBox were monomeric at concns.  $\leq 800$  and  $280 \mu\text{M}$ , resp.  
 Therefore, the enhanced helicity of BHBox could be attributed to  
 intramol.

helix-helix interactions.  
 ACCESSION NUMBER: 2002:675439 CAPLUS  
 DOCUMENT NUMBER: 137:348094  
 TITLE: Long-Range Interactions Stabilize the Fold of a  
 Non-natural Oligomer  
 AUTHOR(S): Cheng, Richard P.; DeGrado, William F.  
 CORPORATE SOURCE: Johnson Research Foundation, Department of  
 Biochemistry and Biophysics, University of  
 Pennsylvania School of Medicine, Philadelphia, PA,  
 19104-6059, USA  
 SOURCE: Journal of the American Chemical Society (2002),  
 124(39), 11564-11565  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 474687-27-9 474687-28-0  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties);

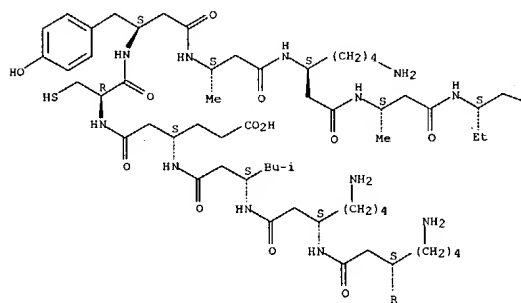
FYP  
 (Physical process); PROC (Process)  
 (long-range interactions stabilize fold of  $\beta$ -oligomer composed of  
 $\beta$ -amino acids)

RN 474687-27-9 CAPLUS  
 CN D-Aspartic acid,  
 N3-[N3-[N3-[N3-L-cysteinyl-(3S)-3,7-diaminoheptanoyl-(3S)-  
 3-aminobutanoyl-(3S)-3-aminopentanoyl-(3S)-3-amino-5-carboxypentanoyl-L-  
 cysteinyl-(3S)-3,7-diaminoheptanoyl-(3S)-3,7-diaminoheptanoyl-(3S)-3-  
 amino-5-methylhexanoyl-(3S)-3-amino-5-carboxypentanoyl-L-cysteinyl-  
 (3S)- $\beta$ -amino-4-hydroxybenzenebutanoyl-(3S)-3-aminobutanoyl-(3S)-  
 3,7-diaminoheptanoyl-(3S)-3-aminobutanoyl-(3S)-3-aminopentanoyl-(3CI)  
 (CA INDEX NAME)

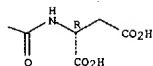
Absolute stereochemistry.

L14 ANSWER 225 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)

PAGE 1-A

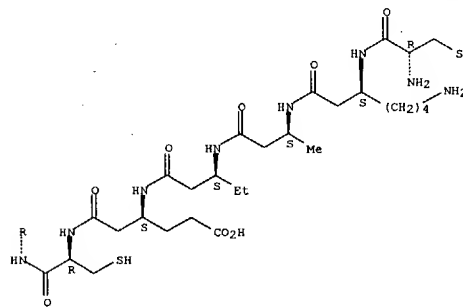


PAGE 1-B



L14 ANSWER 225 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)

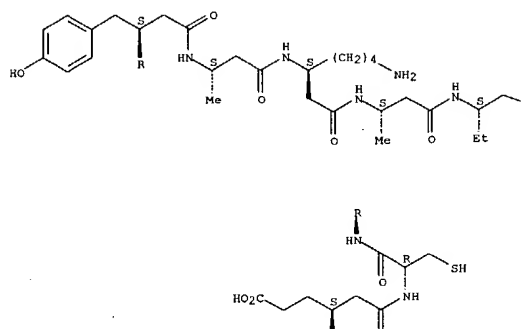
PAGE 2-A



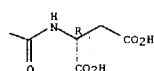
RN 474687-28-0 CAPLUS  
 CN D-Aspartic acid,  
 N3-[N3-[N3-[N-[(3S)-5-carboxy-3-[(3S)-3-[(3S)-3-[(3S)-  
 3,7-diamino-1-oxoheptyl]amino]-1-oxobutyl]amino]-1-oxopentyl]amino]-1-  
 oxopentyl]-L-cysteinyl-(3S)-3,7-diaminoheptanoyl-(3S)-3,7-  
 diaminoheptanoyl-(3S)-3-amino-5-methylhexanoyl-(3S)-3-amino-5-  
 carboxypentanoyl-L-cysteinyl-(3S)- $\beta$ -amino-4-  
 hydroxybenzenebutanoyl-(3S)-3-aminobutanoyl-(3S)-3,7-diaminoheptanoyl-  
 (3S)-3-aminobutanoyl-(3S)-3-aminopentanoyl-(3CI) (CA INDEX NAME)

Absolute stereochemistry.

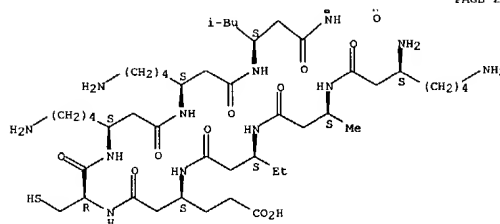
PAGE 1-A



PAGE 1-B



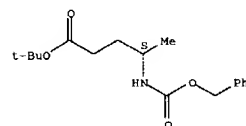
PAGE 2-A



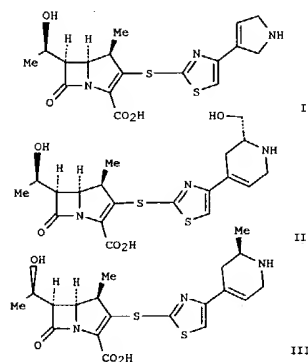
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

PUBLISHER: Japan Antibiotics Research Association  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 475266-28-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of 1β-methyl-2-(thiazol-2-ylthio)carbapenems as new anti-MRSA and anti-VRE carbapenems antibacterials, and establishment of the structure activity relationship)  
RN 475266-28-5 CAPLUS  
CN Pentanoic acid, 4-[[[(phenylmethoxy)carbonyl]amino]-, 1,1-dimethylethyl ester, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

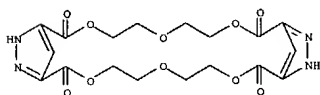


AB Discovery of novel antimicrobial agents effective against infections caused by drug-resistant pathogens is an important objective. In order to find a new parenteral carbapenem antibiotic, which has potent antibacterial activity especially against methicillin-resistant staphylococci, vancomycin-resistant enterococci and penicillin-resistant Streptococcus pneumoniae, a series of 1 β-methylcarbapenems with thiazol-2-ylthio groups at the C-2 position were synthesized. Structure-activity relationships were investigated which led to SM-197436 I, SM-232721 II and SM-232724 III, being selected for further evaluation.

ACCESSION NUMBER: 2002:674523 CAPLUS  
DOCUMENT NUMBER: 137:369869  
TITLE: New anti-MRSA and anti-VRE carbapenems; synthesis and structure-activity relationships of 1 β-methyl-2-(thiazol-2-ylthio)carbapenems  
AUTHOR(S): Sunagawa, Makoto; Itch, Masanori; Kubota, Katsumi; Sasaki, Akira; Ueda, Yutaka; Angehrn, Peter; Bourson, Anne; Goetschi, Erwin; Hebeisen, Paul; Then, Rudolf  
L. CORPORATE SOURCE: Sumitomo Pharmaceuticals Research Division, Osaka, 554-0022, Japan  
SOURCE: Journal of Antibiotics (2002), 55(8), 722-757  
CODEN: JANTAJ; ISSN: 0021-8820

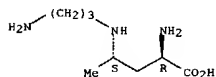
L14 ANSWER 227 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB The equilibrium stability consts. (Ks) of ammonium pyrazolate complexes (1,2-12RM(R')H2+ (3, R' = H and 4, R' = Me) formed from a macrocyclic disodium dipyrazolate salt 2[L2-] 2Na+ and ammonium salts (RNH3+X- or RN(Me)H2X-) of psychotropic drugs and neurotransmitter catecholamines have been evaluated by electrochem. methods in DMSO solution. The resulting Ks values demonstrate that, except for (±)-amphetamine, the complexes formed by lipophilic primary [mescaline, (+)-amphetamine, (±)-p-methoxyamphetamine (PMA), (±)-3,4-methylenedioxamphetamine (MDA)] and secondary [(±)-methamphetamine, (+)-methamphetamine and (±)-3,4-methylenedioxymethamphetamine (MDMA ecstasy)] phenethylamines are more stable than those formed from hydrophilic ones (dopamine and norepinephrine). A 1H and 13C NMR study on the formation of complexes of structure 3 and 4 formed from primary [mescaline, (+)-amphetamine] and secondary [(+)-methamphetamine] ammonium salts is given.

ACCESSION NUMBER: 2002:647697 CAPLUS  
 DOCUMENT NUMBER: 138:406723  
 TITLE: Effective complexation of psychotropic phenethylammonium salts from a disodium dipyrazolate salt of macrocyclic structure  
 AUTHOR(S): Reviriego, Felipe; Navarro, Pilar; Domenech, Antonio; Garcia-Espana, Enrique  
 CORPORATE SOURCE: Instituto de Quimica Medica, CSIC, Madrid, 28006, Spain  
 SOURCE: Journal of the Chemical Society, Perkin Transactions 2  
 (2002), (9), 1634-1638  
 CODEN: JCSPGI; ISSN: 1472-779X  
 PUBLISHER: Royal Society of Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 531513-34-5  
 RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)  
 (complexation of psychotropic phenethylammonium salts from a disodium dipyrazolate salt of macrocyclic structure)  
 RN 531513-34-5 CAPLUS  
 CN 3,6,9,16,19,22-Hexaoxa-12,13,25,26-tetraazatricyclo[22.2.1.11,14]octacosal-1(27),11,14(28),24-tetraene-2,10,15,23-tetrone, compd. with (αS)-N,α-dimethylbenzeneethanamine (1:2) (9CI) (CA INDEX NAME)  
 CH 1  
 CRN 134778-22-6  
 CMF C18 H20 N4 O10



L14 ANSWER 228 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB A versatile and efficient template synthesis has been developed to synthesize novel polyamines, such as isospermidine, via amino acids, such as (2R,4S/2S,4R)-N4-(3-aminopropyl)-2,4-diaminopentanoic acid, using cobalt(III) to assemble the three precursor components in a biomimetic manner.

ACCESSION NUMBER: 2002:647462 CAPLUS  
 DOCUMENT NUMBER: 138:187547  
 TITLE: Assembly of polyamines via amino acids from three components using cobalt(III) template methodology  
 AUTHOR(S): Laval, Gilles; Clegg, William; Crane, Christopher G.; Hammershoi, Anders; Sargeson, Alan M.; Golding, Bernard T.  
 CORPORATE SOURCE: Department of Chemistry, University of Newcastle upon Tyne, Newcastle upon Tyne, NE1 7RU, UK  
 SOURCE: Chemical Communications (Cambridge, United Kingdom) (2002), (17), 1874-1875  
 CODEN: CHCOFS; ISSN: 1359-7345  
 PUBLISHER: Royal Society of Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:187547  
 IT 498579-34-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (assembly of polyamines via amino acids from three components using cobalt(III) template methodol.)  
 RN 498579-34-3 CAPLUS  
 CN D-Norvaline, 4-[(3-aminopropyl)amino]-, dihydrochloride, (4S)-rel- (9CI) (CA INDEX NAME)  
 Relative stereochemistry.



● 2 HCl

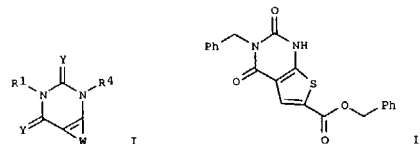
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS  
 FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L14 ANSWER 227 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
 CM 2  
 CRN 537-46-2  
 CMF C10 H15 N  
 Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS  
 FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L14 ANSWER 229 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 GI



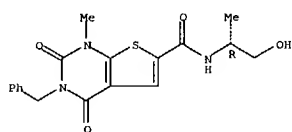
AB Title fused pyrimidinones I [wherein C2W = 5-membered (hetero)cyclic diradical substituted with ABR3 and optionally substituted with R2; A = CO or SOO-2; B = O or NR5; or AB = C.tplbond.C; R1, R4, and R5 = independently H, alkyl, alkenyl, alkynyl, (CH2)n-(hetero)aryl, (CH2)n-cycloalkyl, (CH2)n-heterocyclyl, or alkanoyl; R2 and R3 = independently H, alkyl, alkenyl, alkynyl CN, NO2, NR4R5, (CH2)n-cycloalkyl, or (CH2)n-(hetero)aryl; or R2 = halo; n = 0-5; or NR4R5 = (un)substituted heterocyclyl; with the proviso that R1 and R3 = both H or alkyl; or pharmaceutically acceptable salts thereof] were prepared as matrix metalloproteinase (MMP) inhibitors, especially as selective MMP-13 inhibitors. For example, 3-benzyl-6-chloro-1H-pyrimidine-2,4-dione was coupled with mercaptoacetic acid Et ester using Na2CO3 in EtOH (67%) and the product cyclized with POCl3 in anhydrous DMF to give 3-benzyl-2,4-dioxo-1,2,3,4-tetrahydrothieno[2,3-d]pyrimidine-6-carboxylic acid Et ester (95%). Saponification (96%) followed by esterification with benzyl alc. and 1-cyclohexyl-3-(2-morpholinoethyl)carbodiimide metho-p-toluenesulfonate afforded II (12%). The latter selectively inhibited the hydrolytic activity of MMP-13 (0.61 μM) over MMP-1 (100 μM), MMP-2 (100 μM), MMP-3 (18 μM), MMP-7 (100 μM), MMP-9 (100 μM), MMP-12 (100 μM), and MMP-14 (100 μM) with the indicated IC50 values. I are useful for the treatment of diseases mediated by the MMP-13 enzyme, such as cancer, rheumatoid arthritis, or osteoarthritis (no data). Formulations of I are also disclosed.

ACCESSION NUMBER: 2002:637683 CAPLUS  
 DOCUMENT NUMBER: 137:185504  
 TITLE: Preparation of thieno[2,3-d]pyrimidinones as matrix metalloproteinase inhibitors for treatment of cancer, rheumatoid arthritis, and osteoarthritis  
 INVENTOR(S): Harter, William Glen; Li, Jie Jack; Ortwine, Daniel  
 PATENT ASSIGNEE(S): Warner-Lambert Company, USA  
 SOURCE: PCT Int. Appl., 278 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English

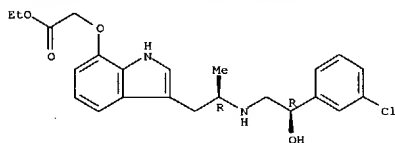
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2002064598   | A1   | 20020822 | WO 2002-IB204   | 20020118 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| EP 1370562  | A1   | 20031217 | EP 2002-711123  | 20020118 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |          |
| BR 200207216  | A    | 20040309 | BR 2002-7216    | 20020118 |
| US 2003004172   | A1   | 20030102 | US 2002-75073   | 20020213 |
| PRIORITY APPLN. INFO.: US 2001-268756P P 20010214 WO 2002-IB204 W 20020118  |      |          |                 |          |

OTHER SOURCE(S): MARPAT 137:185504  
 IT 448971-64-0P  
 RL: DRC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (MMP inhibitor; preparation of thienopyrimidinediones as MMP inhibitors for treatment of cancer, rheumatoid arthritis, and osteoarthritis)  
 RN 448971-64-0 CAPLUS  
 CN Thieno[2,3-d]pyrimidine-5-carboxamide, 1,2,3,4-tetrahydro-N-[(1R)-2-hydroxy-1-methylethyl]-1-methyl-2,4-dioxo-3-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L14 ANSWER 230 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN.  
 AB Disclosed are a method of controlling the concentration of  $\beta 3$  adrenalin receptor in blood to thereby regulate the effect of blood insulin on the expression of the drug effect of a  $\beta 3$  adrenalin receptor agonist in case of administering the  $\beta 3$  adrenalin receptor agonist, and preps. appropriate for controlling the  $\beta 3$  adrenalin receptor agonist concentration in blood. Granules containing spheroidal crystalline cellulose 90, [3-[(2R)-[[[(2R)-(3-Chlorophenyl)-2-hydroxyethyl]amino]propyl]-1H-indole-7-yloxy]acetate (I) 1, crystalline cellulose 4, hydroxypropyl cellulose 5 & was coated with a coating solution containing methacrylic acid-Me methacrylate copolymer (Eudragit S100) 100, tri-Et citrate 10, magnesium stearate 50 parts to obtain enteric granules. The obtained enteric granules showed controlled blood concentration of I in rats.  
 ACCESSION NUMBER: 2002:637517 CAPLUS  
 DOCUMENT NUMBER: 137:174951  
 TITLE: Pharmaceutical compositions providing controlled blood concentration of  $\beta 3$  adrenalin receptor agonists  
 INVENTOR(S): Sugimoto, Tadanori; Furutani, Yasuji; Iwata, Motokazu;  
 PATENT ASSIGNEE(S): Kuriyama, Teruaki; Higaki, Masaru; Kurita, Hideo  
 SOURCE: Dainippon Pharmaceutical Co., Ltd., Japan  
 PCT Int. Appl., 58 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2002064133   | A1   | 20020822 | WO 2002-JP1223  | 20020214 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| PRIORITY APPLN. INFO.: JP 2001-40809 A 20010216   |      |          |                 |          |

IT 448217-58-1  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (pharmaceutical compns. providing controlled blood concentration of  $\beta 3$  adrenalin receptor agonists)  
 RN 448217-58-1 CAPLUS  
 CN Acetic acid, [(3-[(2R)-2-[[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-1H-indol-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)

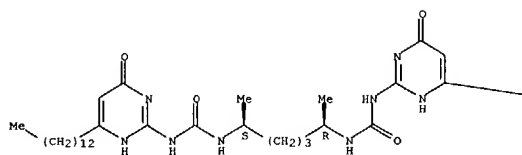
Absolute stereochemistry.

L14 ANSWER 231 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Supramol. polymers, in which the monomer units are linked together by non-covalent interactions, provide unique opportunities to design responsive materials, as the system remains in constant equilibrium with its environment. One of the most interesting aspects is the equilibrium between linear and cyclic structures formed in solution and in bulk material, as this strongly influences solution and material properties. Bifunctional mols. based on the strongly quadruple hydrogen bonding 2-ureido-4[1H]-pyrimidinone moiety form long supramol. polymers as well as small cyclic oligomers in solution. The equilibrium between the different aggregates is dependent on external conditions such as temperature, but also on the geometry of the monomers. Here we report that small changes in the structure of the spacer between the hydrogen bonding units have a striking effect on the tendency of the mol. to form cyclic structures and, with that, on solution viscosity.  
 ACCESSION NUMBER: 2002:624907 CAPLUS  
 DOCUMENT NUMBER: 137:353337  
 TITLE: Tuning supramolecular ring-opening polymerization by conformational design  
 AUTHOR(S): ten Cate, A. Tessa; Sijbesma, Rint P.; Meijer, E. W.  
 CORPORATE SOURCE: Laboratory of Macromolecular and Organic Chemistry, Eindhoven University of Technology, Eindhoven,  
 NL-5600 MB, Neth.  
 SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2002), 43(2), 333-334  
 CODEN: ACPPAY; ISSN: 0032-3934  
 PUBLISHER: American Chemical Society, Division of Polymer Chemistry  
 DOCUMENT TYPE: Journal; (computer optical disk)  
 LANGUAGE: English  
 IT 474901-70-7P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (effect of spacer structure on formation of cyclic structures and solution viscosity)  
 RN 474901-70-7 CAPLUS  
 CN Urea, N,N'-[(1R,5S)-1,5-dimethyl-1,5-pentanediy]bis[N'-(1,4-dihydro-4-oxo-6-tridecyl-2-pyrimidinyl)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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PAGE 1-B

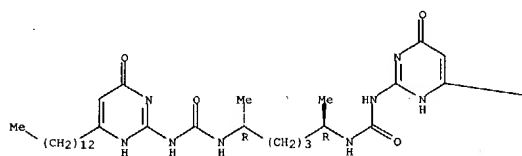


PAGE 1-B



IT 474901-71-8P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (effect of spacer structure on formation of cyclic structures and solution viscosity)  
 RN 474901-71-8 CAPLUS  
 CN Urea, N,N'-[(1R,5R)-1,5-dimethyl-1,5-pentanediy]bis[N'-(1,4-dihydro-4-oxo-6-tridecyl-2-pyrimidinyl)]- (9CI) (CA INDEX NAME)  
 Absolute stereochemistry.

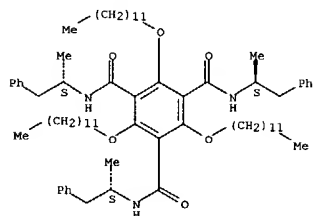
PAGE 1-A



L14 ANSWER 232 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Chiral side chains installed into the stacks of overcrowded arenes enforce helical conformations. The assembly process can be directed with electric fields as a result of a dipole moment parallel to the stacking direction. In concentrated solutions, superhelices emerge that reflect circularly polarized light.  
 ACCESSION NUMBER: 2002:623508 CAPLUS  
 DOCUMENT NUMBER: 138:4316  
 TITLE: The Consequences of chirality in crowded arenes-macromolecular helicity, hierarchical ordering, and directed assembly  
 AUTHOR(S): Bushey, Mark L.; Hwang, Austin; Stephens, Peter W.; Nuckolls, Collin  
 CORPORATE SOURCE: Department of Chemistry, Columbia University, New York, NY, 10027, USA  
 SOURCE: Angewandte Chemie, International Edition (2002), 41(15), 2828-2831  
 CODEN: ACIEF5; ISSN: 1433-7851  
 PUBLISHER: Wiley-VCH Verlag GmbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:4316

IT 476684-22-7P 476684-26-1P  
 RL: PRE (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (consequences of chirality in crowded arenes-macromol. helicity hierarchical ordering and directed assembly)  
 RN 476684-22-7 CAPLUS  
 CN 1,3,5-Benzenetricarboxamide, 2,4,6-tris(dodecyloxy)-N,N',N''-tris[(1S)-1-methyl-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



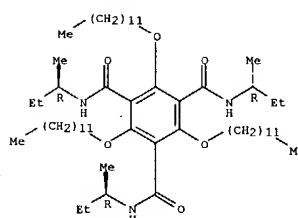
RN 476684-26-1 CAPLUS  
 CN 1,3,5-Benzenetricarboxamide, 2,4,6-tris(dodecyloxy)-N,N',N''-tris[(1S)-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RECORD.

FORMAT

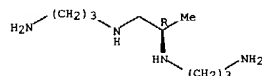


REFERENCE COUNT: 76 THERE ARE 76 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RECORD.

FORMAT

L14 ANSWER 233 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Syntheses of different open chain polyamines starting from enzymically prepared bis(amidoesters) are described. Some of these polyamines are also used as precursors in the syntheses of tetraazamacrocycles. This methodol. can also be applied to the synthesis of chiral compds.  
 ACCESSION NUMBER: 2002:619869 CAPLUS  
 DOCUMENT NUMBER: 138:14042  
 TITLE: Chemoenzymatic syntheses of polyamines and tetraazamacrocycles  
 AUTHOR(S): Rubio, Mercedes; Astorga, Covadonga; Alfonso, Ignacio;  
 CORPORATE SOURCE: Rebolledo, Francisca; Gotor, Vicente  
 SOURCE: Departamento de Química Orgánica e Inorgánica, Universidad de Oviedo, Oviedo, 33071, Spain  
 CODEN: SYNCAV; ISSN: 0039-7911  
 PUBLISHER: Matcel Dekker, Inc.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:14042  
 IT 477808-30-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (chemoenzymic preparation of polyamines and tetraazamacrocycles)  
 RN 477808-30-3 CAPLUS  
 CN 1,2-Propanediamine, N,N'-bis(3-aminopropyl)-, tetrahydrochloride, (2R)-(9CI) (CA INDEX NAME)

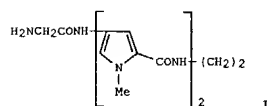
Absolute stereochemistry. Rotation (-).



●4 HCl

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L14 ANSWER 234 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 GI



AB Compds. R<sub>1</sub>NH-Ar<sub>1</sub>-CO(NH-Ar<sub>2</sub>-CO)NHNH-L-NH(CO-Ar<sub>3</sub>-NH)mCO-Ar<sub>4</sub>-NHR<sub>2</sub> [R<sub>1</sub>, R<sub>2</sub> = H, alkyl, (un)substituted alkanoyl or carbamoyl, at least one of which can form a salt; m, n = 0-4; Ar<sub>1</sub>-Ar<sub>4</sub> = optionally substituted (hetero)arylene; L = alkylene which may be substituted by CONHR<sub>4</sub>, CONHNHR<sub>6</sub>, NHR<sub>9</sub> (R<sub>4</sub>, R<sub>6</sub>, R<sub>9</sub> = H, alkyl, aryl, etc.), or a guanidino group or L = (alkylene)x-Z-(alkylene)y-(Za)z, where x, y, and z = 0-2 and Z and Za = phenylene, cycloalkylene optionally fused to one or two phenylene ring(s), heterocyclene, O, S, NR<sub>10</sub> (R<sub>10</sub> = H, alkyl, cycloalkylamino, etc.), CONH or NHCO, provided that when Z and/or Za is NR<sub>10</sub>, it is separated from another nitrogen atom by at least two carbon atoms] or their pharmaceutically-acceptable salts were prepared as novel antibacterial/antifungal/antiparasitic agents. Thus, compd I was prepared by a multistep sequence involving coupling reactions of Me 4-amino-1-methyl-1H-pyrrole-2-carboxylate, N-(tert-butoxycarbonyl)glycine pentafluorophenyl ester, and ethylenediamine. Compd I showed min. inhibitory concentration values >45.5 against various bacterial strains.

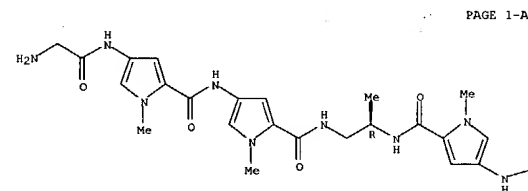
ACCESSION NUMBER: 2002:615567 CAPLUS  
 DOCUMENT NUMBER: 137:169795  
 TITLE: Preparation of polyamide analogs as antibacterial, antifungal, and antiparasitic agents  
 INVENTOR(S): Velligan, Mark D.; Khorlin, Alexander; Dyatkina, Natalia B.; Shi, Dong-Fang; Rotyanski, Janos; Liehr, Sebastian  
 PATENT ASSIGNEE(S): Genelabs Technologies, Inc., USA  
 SOURCE: PCT Int. Appl., 119 pp.  
 CODEN: PIXXK2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| WO 2002062755 | A2   | 20020815 | WO 2001-US45873 | 20011227 |
| WO 2002062755 | A3   | 20030821 |                 |          |

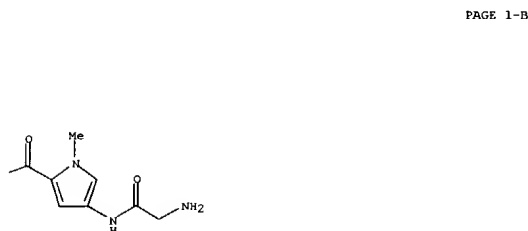
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L14 ANSWER 234 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
 CM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BE, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 US 2002198254 A1 20021226 US 2001-26963 20011227  
 PRIORITY APPL. INFO.: MARPAT 137:169795  
 IT 446882-00-4P 446882-02-6P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of polyamide analogs as antibacterial, antifungal, and antiparasitic agents)  
 RN 446882-00-4 CAPLUS  
 CN 1H-Pyrrole-2-carboxamide, N,N'-[(1R)-1-methyl-1,2-ethanediyl]bis[4-[[[4-(aminoacetyl)amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



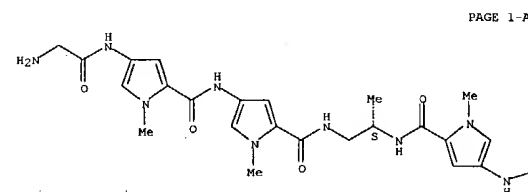
PAGE 1-A



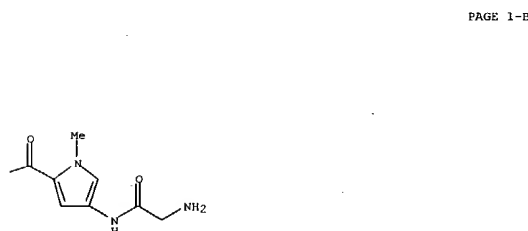
PAGE 1-B

L14 ANSWER 234 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
 RN 446882-02-6 CAPLUS  
 CN 1H-Pyrrole-2-carboxamide, N,N'-[(1S)-1-methyl-1,2-ethanediyl]bis[4-[[[4-(aminoacetyl)amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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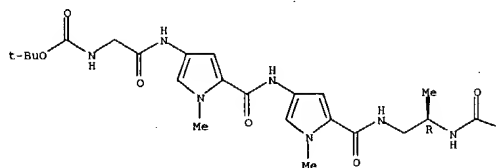


PAGE 1-B

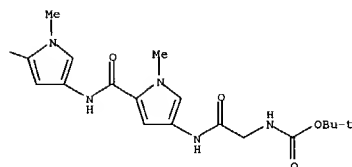
IT 446883-52-9P 446883-53-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of polyamide analogs as antibacterial, antifungal, and antiparasitic agents)  
 RN 446883-52-9 CAPLUS  
 CN Carbamic acid, [2-[[[5-[[[5-[[[1R)-2-[[[4-[[[4-[[[1,1-dimethylethoxy]carbonyl]amino]acetyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



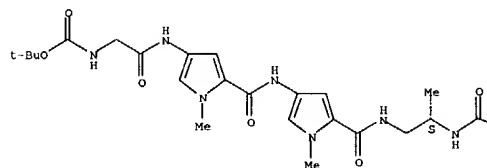
PAGE 1-B



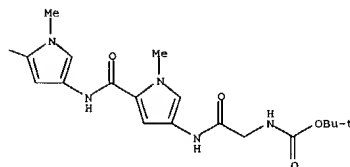
RN 446883-53-0 CAPLUS  
 CN Carbamic acid, [2-[[[5-[[[1S]-2-[[[4-[[[4-[[[1,1-dimethylethoxy]carbonyl]amino]acetyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methylethyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

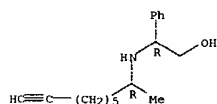


L14 ANSWER 235 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Propargylamines (R,R)-HOCH2CHPhNHCHR.C.tplbond.C(CH2)4Me [R = Me, CHMe2, CH2CH2Ph], prepared in three steps from (R)-phenylglycinol, are readily isomerized at 0 °C with H2N(CH2)3NHK to form terminal acetylenic amines (R,R)-HOCH2CHPhNHCHR (CH2)5C.tplbond.CH, without any detectable epimerization of the chiral center, as already observed for propargyl alcs.

Enantiomerically pure (R)-H2NCHR(CH2)5C.tplbond.CH are obtained by oxidative cleavage of the chiral appendage.  
 ACCESSION NUMBER: 2002:603600 CAPLUS  
 DOCUMENT NUMBER: 138:72977  
 TITLE: Isomerization of chiral non-racemic α-substituted propargylic amines to terminal acetylenes  
 AUTHOR(S): Blanchet, Jerome; Bonin, Martine; Micouin, Laurent; Hussion, Henri-Philippe  
 CORPORATE SOURCE: Laboratoire de Chimie Therapeutique associe au CNRS et  
 SOURCE: a l'Universite Rene Descartes (UMR 8638), Faculte des Sciences Pharmaceutiques et Biologiques, 4, av. l'Observatoire, Paris, 75270/06, Fr.  
 PUBLISHER: European Journal of Organic Chemistry (2002), (15), 2598-2602  
 DOCUMENT TYPE: CODEN: EJOCFK; ISSN: 1434-193X  
 LANGUAGE: Wiley-VCH Verlag GmbH  
 OTHER SOURCE(S): English  
 IT 481075-15-4P CASREACT 138:72977

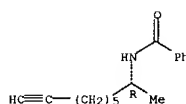
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (isomerization of chiral non-racemic α-substituted propargylic amines to terminal acetylenes)  
 RN 481075-15-4 CAPLUS  
 CN Benzeneethanol, β-[[[1R]-1-methyl-7-octynyl]amino]-, (βR)- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



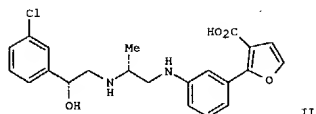
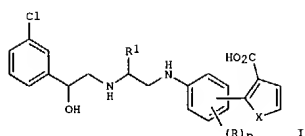
IT 481075-21-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (isomerization of chiral non-racemic α-substituted propargylic amines to terminal acetylenes)  
 RN 481075-21-2 CAPLUS  
 CN Benzamide, N-[[[1R]-1-methyl-7-octynyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT





AB Title compds. I [X = O, X and where the heterocycle containing X is substituted meta or para to the depicted NH; R1 = H, alkyl; R = alkyl, halo, trifluoromethyl, alkoxy; n = 0-4] were prepared For instance, II

was prepared in 3 steps. I are  $\beta$ -3 agonists and useful for treating beta-3 mediated diseases, e.g., diabetes or obesity.

ACCESSION NUMBER: 2002:594832 CAPLUS  
DOCUMENT NUMBER: 137:154843  
TITLE: Synthesis of aminoarylheterocyclic carboxylic acids as

$\beta$ -3 agonists used for obesity  
INVENTOR(S): Deaton, David N.; Shearer, Barry George; Uehling, David Edward

PATENT ASSIGNEE(S): Glaxo Group Limited, UK  
SOURCE: PCT Int. Appl., 31 pp.

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 2002060885  | A1   | 20020808 | WO 2001-US49299 | 20011217 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, |      |          |                 |          |

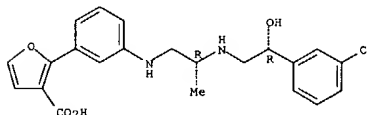
TH

L14 ANSWER 236 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
RW: GH, GM, KE, LS, MW, ME, SD, SL, SZ, T2, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
EP 1366033 A1 20031203 EP 2001-994312 20011217  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
BR 2001016854 A 20040225 BR 2001-16854 20011217  
NO 2003003401 A 20030930 NO 2003-3401 20030730  
PRIORITY APPLN. INFO.: GB 2001-2408 A 20010131  
WO 2001-US49299 W 20011217

OTHER SOURCE(S): MARPAT 137:154843  
IT 445307-54-OP 445307-56-2P 445307-57-3P  
445307-59-5P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

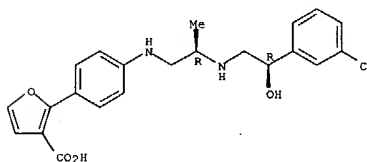
(drug; synthesis of aminoarylheterocyclic carboxylic acids as  $\beta$ -3 agonists used for obesity)  
RN 445307-54-0 CAPLUS  
CN 3-Furancarboxylic acid, 2-[3-[[[(2R)-2-[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]amino]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 445307-56-2 CAPLUS  
CN 3-Furancarboxylic acid, 2-[4-[[[(2R)-2-[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]amino]phenyl]- (9CI) (CA INDEX NAME)

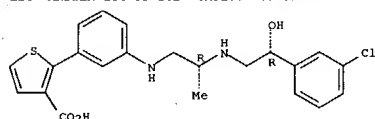
Absolute stereochemistry.



RN 445307-57-3 CAPLUS  
CN 3-Thiophenecarboxylic acid, 2-[3-[[[(2R)-2-[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]amino]phenyl]- (9CI) (CA INDEX NAME)

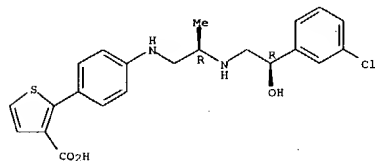
Absolute stereochemistry.

L14 ANSWER 236 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 445307-59-5 CAPLUS  
CN 3-Thiophenecarboxylic acid, 2-[4-[[[(2R)-2-[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]amino]phenyl]- (9CI) (CA INDEX NAME)

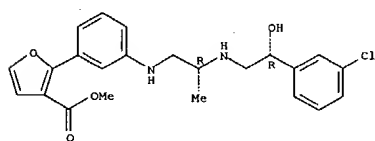
Absolute stereochemistry.



IT 445307-43-7P 445307-45-9P 445307-46-0P  
445307-48-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; synthesis of aminoarylheterocyclic carboxylic acids as  $\beta$ -3 agonists used for obesity)

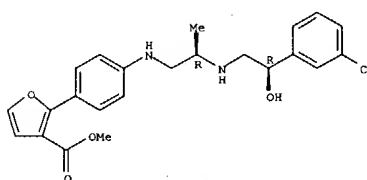
RN 445307-43-7 CAPLUS  
CN 3-Furancarboxylic acid, 2-[3-[[[(2R)-2-[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]amino]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



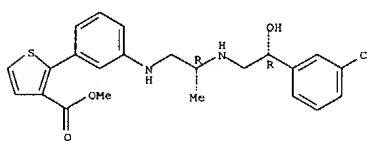
RN 445307-45-9 CAPLUS  
CN 3-Furancarboxylic acid, 2-[4-[[[(2R)-2-[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]amino]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

L14 ANSWER 236 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
Absolute stereochemistry.



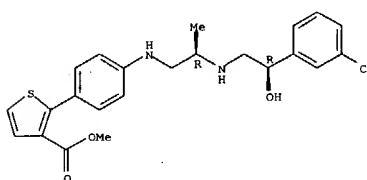
RN 445307-46-0 CAPLUS  
CN 3-Thiophenecarboxylic acid, 2-[3-[[[(2R)-2-[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]amino]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 445307-48-2 CAPLUS  
CN 3-Thiophenecarboxylic acid, 2-[4-[[[(2R)-2-[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]amino]phenyl]-, methyl ester (9CI) (CA INDEX NAME)

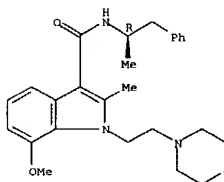
Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

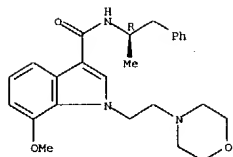
L14 ANSWER 237 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB C-3 Amido-indoles were found to selectively bind to the CB2 receptor.  
 Structure-activity relationship (SAR) studies led to  
 optimized compds. with excellent in vivo potency against LPS induced  
 TNF- $\alpha$  release in murine models of cytokine production  
 ACCESSION NUMBER: 2002:585100 CAPLUS  
 DOCUMENT NUMBER: 138:231273  
 TITLE: C-3 Amido-Indole cannabinoid receptor modulators  
 AUTHOR(S): Hynes, John; Leftheris, Katerina; Wu, Hong; Pandit,  
 Chennagiri; Chen, Ping; Norris, Derek J.; Chen,  
 Bang-Chi; Zhao, Rulin; Kiener, Peter A.; Chen,  
 Xiaorong; Turk, Lori A.; Patil-Koota, Vina; Gillooly,  
 Kathleen M.; Shuster, David J.; McIntyre, Kim W.  
 CORPORATE SOURCE: Discovery Chemistry, Bristol-Myers Squibb, Princeton,  
 NJ, 08543-4000, USA  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (2002),  
 12(17), 2399-2402  
 CODEN: BMCLEB; ISSN: 0960-894X  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:231273  
 IT 501927-07-7P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (structure-activity relationship of amido-indoles as cannabinoid  
 receptor modulators)  
 RN 501927-07-7 CAPLUS  
 CN 1H-Indole-3-carboxamide, 7-methoxy-2-methyl-N-[(1R)-1-methyl-2-  
 phenylethyl]-1-[2-(4-morpholinyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 501926-84-7  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (structure-activity relationship of amido-indoles as cannabinoid  
 receptor modulators)  
 RN 501926-84-7 CAPLUS  
 CN 1H-Indole-3-carboxamide,  
 7-methoxy-N-[(1R)-1-methyl-2-phenylethyl]-1-[2-(4-  
 morpholinyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

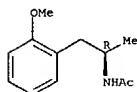


REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L14 ANSWER 238 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Some pharmacol. active amines such as amphetamine, the isomeric o-, m-  
 and  
 p-methoxyamphetamines, 4-phenylbutan-2-amine and mexiletine, as well as  
 their corresponding acetamides, have been prepared in high yields and  
 with  
 very high enantiomeric excesses. The method consists of the Candida  
 antarctica lipase B (CAL-B)-mediated enantioselective acetylation of  
 racemic amines using Et acetate as solvent and acyl donor. The enzyme  
 follows Kazlauskas' rule with all amines, (R)-amides being obtained as  
 the  
 major enantiomer in all cases. From the conversion values measured for  
 both enantiomers, it can be deduced that the size of the substituents  
 attached to the stereocenter is responsible for the enantioselectivity  
 and  
 rate of some of these reactions.

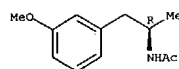
ACCESSION NUMBER: 2002:585043 CAPLUS  
 DOCUMENT NUMBER: 138:89529  
 TITLE: CAL-B-catalyzed resolution of some pharmacologically  
 interesting  $\beta$ -substituted isopropylamines  
 AUTHOR(S): Gonzalez-Sabin, Javier; Gotor, Vicente; Rebollo,  
 Francisca  
 CORPORATE SOURCE: Departamento de Quimica Organica e Inorganica,  
 Universidad de Oviedo, Oviedo, 33071, Spain  
 SOURCE: Tetrahedron: Asymmetry (2002), 13(12), 1315-1320  
 CODEN: TASYE3; ISSN: 0957-4166  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:89529  
 IT 484033-26-3P 484033-29-6P  
 RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); BIOL  
 (Biological study); PREP (Preparation)  
 (CAL-B-catalyzed resolution of some pharmacol. interesting  
 $\beta$ -substituted isopropylamines)  
 RN 484033-26-3 CAPLUS  
 CN Acetamide, N-[(1R)-2-(2-methoxyphenyl)-1-methylethyl]- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry. Rotation (+).



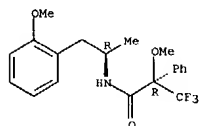
RN 484033-29-6 CAPLUS  
 CN Acetamide, N-[(1R)-2-(3-methoxyphenyl)-1-methylethyl]- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry. Rotation (+).



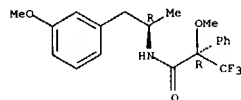
IT 484033-36-5P 484033-38-7P 484033-40-1P  
 484033-42-3P  
 RL: PREP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (CAL-B-catalyzed resolution of some pharmacol. interesting  
 β-substituted isopropylamines)  
 RN 484033-36-5 CAPLUS  
 CN Benzeneacetamide, α-methoxy-N-[(1R)-2-(2-methoxyphenyl)-1-methylethyl]-α-(trifluoromethyl)-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



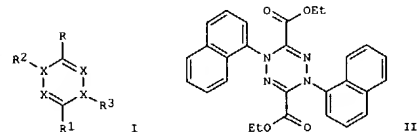
RN 484033-38-7 CAPLUS  
 CN Benzeneacetamide, α-methoxy-N-[(1R)-2-(3-methoxyphenyl)-1-methylethyl]-α-(trifluoromethyl)-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 484033-40-1 CAPLUS  
 CN Benzeneacetamide, α-methoxy-N-[(1S)-2-(2-methoxyphenyl)-1-methylethyl]-α-(trifluoromethyl)-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB Disclosed are heterocyclic compds. and methods for their manufacture. In particular, the compds. disclosed are represented by structure I [each X = (independently) CH or N; R = alkoxy, alkyl, haloalkoxy, alkylketo, alkylthio, CO2H, CONR6R7, ester, thioester, reversed ester, reversed thioester, reversed amide, or COR4; R1 = same groups, except COR5 instead of COR4; R2, R3 = (un)substituted Ph, CH2Ph, α/β-naphthyl, CH2-α/β-naphthyl, certain N/O/S-heteroaryl or CH2-N/O/S-heteroaryl, terpenes, etc.; R4, R5 = methoxy, ethoxy, propoxy, Me, amino, methylamino, ethylamino, butylamino, piperidino, (R)-2-hydroxy-1-methylethylamino or enantiomer, (+)-isopinocampheylamino or enantiomer; R6, R7 = H, alkyl, or carbalkoxyalkyl; including physiol. acceptable salts, diastereomers, enantiomers, double-bond isomers, and/or mixts.]. Also disclosed are methods of using the disclosed compds., including use of the disclosed compds. to stimulate a cannabinoid receptor, to provide a physiol. effect in an animal or individual and to treat a condition in an animal or individual. Compds. I are surprisingly potent and selective cannabinoid. A table of 25 specific compds. is given, and the same compds. are covered individually by claims. A preparatory scheme is also covered by claims. For instance, reaction of 1-naphthalenediazonium sulfuric acid salt with Et 2-chloroacetate gave 1-ClOH7-NHN=C(Cl)CO2Et. This ester was cyclodimerized by NaN(SiMe3)2

in THF at -78°, giving the invention tetrazine II. A representative compound I inhibited adenylate cyclase in an intracellular cAMP bioassay, indicating CB2 agonist activity. In binding studies using rat brain CB1 receptors and mouse spleen CB2 receptors, I generally showed

selectivity for CB2 receptors, with II showing the highest selectivity (524-fold for CB2 over CB1).

ACCESSION NUMBER: 2002:574870 CAPLUS

DOCUMENT NUMBER: 137:140538

TITLE: Novel cannabinimetic ligands, particularly 1,2,4,5-tetrazine derivatives and analogs, and their preparation and pharmaceutical use as selective CB2 ligands

INVENTOR(S): Makriyannis, Alexandros; Deng, Hongfeng

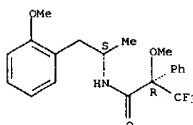
PATENT ASSIGNEE(S): University of Connecticut, USA

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

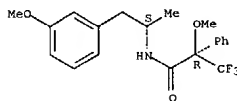
DOCUMENT TYPE: Patent

LANGUAGE: English



RN 484033-42-3 CAPLUS  
 CN Benzeneacetamide, α-methoxy-N-[(1S)-2-(3-methoxyphenyl)-1-methylethyl]-α-(trifluoromethyl)-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS

FORMAT

RECORD. ALL CITATIONS AVAILABLE IN THE RE

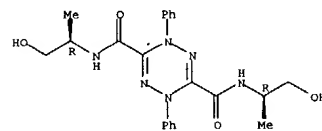
| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 2002058636          | A2   | 20020801 | WO 2002-US2157  | 20020125   |
| WO 2002058636          | A3   | 20021010 |                 |            |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |            |
| RW:                    | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, GN, TD, TG   |          |                 |            |
| EP 1361876             | A2   | 20031119 | EP 2002-707564  | 20020125   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |          |                 |            |
| US 2004077649          | A1   | 20040422 | US 2003-466403  | 20031031   |
| PRIORITY APPLN. INFO.: |  |          | US 2001-264385P | P 20010126 |
|                        |  |          | WO 2002-US2157  | W 20020125 |

OTHER SOURCE(S): MARPAT 137:140538  
 IT 444683-37-8P, N,N'-Di-[β-hydroxy-α-(R)-methylethyl]-1,4-diphenyl-1,4-dihydro-1,2,4,5-tetrazine-3,6-dicarboxylic diamide  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of tetrazine derivs. and analogs as selective CB2 cannabinimetic ligands)

RN 444683-37-8 CAPLUS  
 CN 1,2,4,5-Tetrazine-3,6-dicarboxamide, 1,4-dihydro-N,N'-bis[(1R)-2-hydroxy-1-methylethyl]-1,4-diphenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 240 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN  
 AB Five  $\beta$ -peptide thioesters containing 3, 4, 10 residues, e. g.,  
 NH<sub>2</sub>P3HPhe- $\beta$ 3HTyr- $\beta$ 3Hlys-SEt, were prepared by manual  
 solid-phase synthesis and purified by reverse-phase preparative HPLC. A  
 $\beta$ -undecapeptide and an  $\alpha$ -undecapeptide with N-terminal  
 $\beta$ 3-HCys and Cys residues were prepared by manual and machine synthesis,  
 resp. Coupling of the thioesters with the cysteine derivs. in the  
 presence of PhSH in aqueous solution occurred smoothly and quant.  
 Pentadeca- and heneicosapeptides were isolated, after preparative RP-HPLC purification,  
 in yields of up to 60%. Thus, the so-called native chemical ligation works  
 well with  $\beta$ -peptides, producing larger  $\beta$ 3- and  $\alpha$ / $\beta$ 3-mixed  
 peptides. All prepared compds. were characterized by high-resolution  
 mass spectrometry (HR-MS) and by CD spectroscopy, including temperature and  
 concentration dependence.  $\beta$ -Peptide with 21 residues shows an intense neg. Cotton  
 effect near 210 nm but no zero-crossing above 190 nm, which is  
 characteristic of  $\beta$ -peptidic 31 $\beta$ -helical structures. Comparison of  
 the CD spectra of the mixed  $\alpha$ / $\beta$ -pentadecapeptide  
 NH<sub>2</sub>P3HAla- $\beta$ 3HPhe- $\beta$ 3HTyr- $\beta$ 3HGly-Cys-Gly-Ala-Asp-Tyr-Lys-  
 (Asp)4-Lys-OH and a helical  $\alpha$ -peptide indicate the presence of an  
 $\alpha$ -peptidic 3.613 helix.

ACCESSION NUMBER: 2002:537111 CAPLUS  
 DOCUMENT NUMBER: 137:295232  
 TITLE: Synthesis of  $\beta$ 3-peptides and mixed  
 $\alpha$ / $\beta$ 3-peptides by thioligation  
 AUTHOR(S): Kimmerlin, Thierry; Seebach, Dieter; Hilvert, Donald  
 CORPORATE SOURCE: Laboratorium für Organische Chemie der  
 Eidgenössischen

Technischen Hochschule, ETH-Honggerberg, Zurich,  
 CH-8093, Switz.  
 SOURCE: Helvetica Chimica Acta (2002), 85(6), 1812-1826  
 CODEN: HCACAV; ISSN: 0018-019X  
 PUBLISHER: Verlag Helvetica Chimica Acta  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

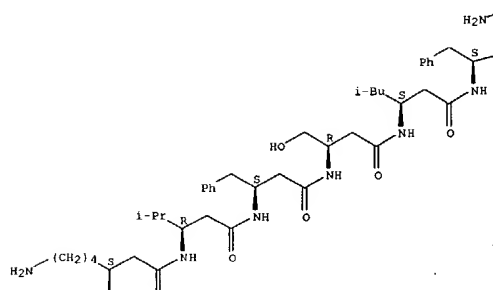
IT 470461-67-7P 470461-69-9P  
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (solid-phase synthesis of  $\beta$ -peptide and mixed  $\alpha$ / $\beta$ -  
 peptide derivs. by thioligation of peptide thioesters with  $\alpha$ - or  
 $\beta$ -peptides cysteine peptides)

RN 470461-67-7 CAPLUS  
 CN 4-Thia-8,12,16,20,24,28,32,36,40-nonaazatetracontanoic acid,  
 43-amino-11,35-bis(4-aminobutyl)-39-[(1R)-1-hydroxyethyl]-23-  
 (hydroxymethyl)-7-methyl-31-(1-methylethyl)-19-(2-methylpropyl)-  
 5,9,13,17,21,25,29,33,37,41-decaoxo-13,27-bis(phenylmethyl)-, ethyl  
 ester,  
 (7S,11S,15S,19S,23R,27S,31R,35S,39R,43S)- (9CI) (CA INDEX NAME)

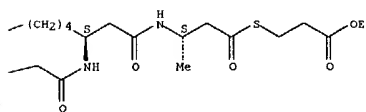
Absolute stereochemistry.

L14 ANSWER 240 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)

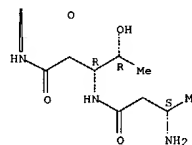
PAGE 1-A



PAGE 1-B



PAGE 2-A



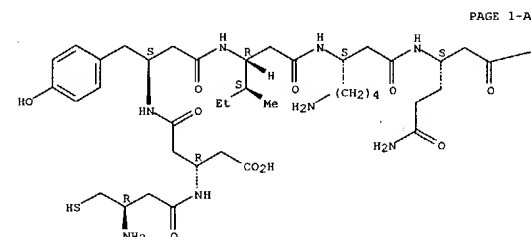
RN 470461-69-9 CAPLUS

L14 ANSWER 240 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)  
 CN 2-Pyrrolidineacetic acid, 1-[(3S,7R,11S,15S,19S,23S,27R,31S,35R,39R)-39-  
 amino-23-(4-aminobutyl)-19-(3-amino-3-oxopropyl)-35-(carboxymethyl)-7-  
 (hydroxymethyl)-31-[(4-hydroxyphenyl)methyl]-40-mercapto-11-methyl-27-  
 [(1S)-1-methylpropyl]-15-(2-methylpropyl)-1,5,9,13,17,21,25,29,33,37-  
 decaoxo-3-(phenylmethyl)-4,8,12,16,20,24,28,32,36-nonaazatetracont-1-yl]-,  
 (2S)-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

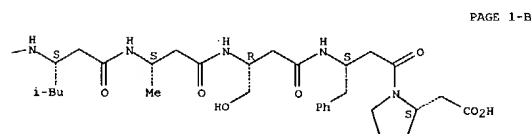
CM 1

CRN 470461-68-8  
 CMF C70 H111 N13 O17 S

Absolute stereochemistry.



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PAGE 1-B

CM 2

CRN 76-05-1  
 CMF C2 H F3 O2

L14 ANSWER 240 OF 262 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)



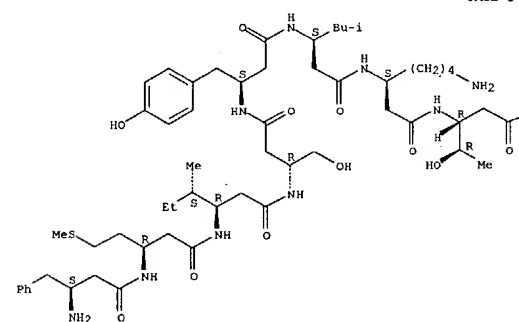
IT 470461-66-6P 470461-72-4P 470461-74-6P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (solid-phase synthesis of  $\beta$ -peptide and mixed  $\alpha$ / $\beta$ -  
 peptide derivs. by thioligation of peptide thioesters with  $\alpha$ - or  
 $\beta$ -peptides cysteine peptides)

RN 470461-66-6 CAPLUS  
 CN 4,8,12,16,20,24,28,32,36-Nonaazatetracontanethioic acid,

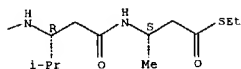
39-amino-15-(4-aminobutyl)-11-[(1R)-1-hydroxyethyl]-27-(hydroxymethyl)-23-  
 [(4-hydroxyphenyl)methyl]-3-methyl-7-(1-methylethyl)-31-[(1S)-1-  
 methylpropyl]-19-(2-methylpropyl)-35-[2-(methylthio)ethyl]-  
 5,9,13,17,21,25,29,33,37-nonaoxo-40-phenyl-, S-ethyl ester,  
 (3S,7R,11R,15S,19S,23S,27R,31R,35R,39S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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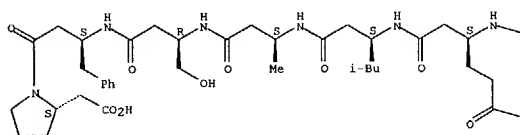


RN 470461-72-4 CAPLUS  
 CN 2-Pyrrolidineacetic acid,  
 1-[(3S,7R,11S,15S,19S,23S,27R,31S,35R,39R,43S,47S,51S,55S)-55-amino-23-(4-aminobutyl)-19-(3-amino-3-oxopropyl)-35-(carboxymethyl)-7-(hydroxymethyl)-31,47-bis[(4-hydroxyphenyl)methyl]-39-(mercaptomethyl)-11-methyl-27-[(1S)-1-methylpropyl]-15-(2-methylpropyl)-1,5,9,13,17,21,25,29,33,37,41,45,49,53-tetradecaaxo-3,51-bis(phenylmethyl)-4,8,12,16,20,24,28,32,36,40,44,48,52-tridecaazahexapentacont-1-yl]-, (2S)-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 470461-71-3  
 CMF C97 H145 N17 O22 S

Absolute stereochemistry.



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L14 ANSWER 240 OF 262 CAPLUS COPYRIGHT 2004 ACS on STM (Continued)  
 56,60,64,68,72,76-nonadecaazaoctacont-1-yl]-, (2S)-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

CM 1

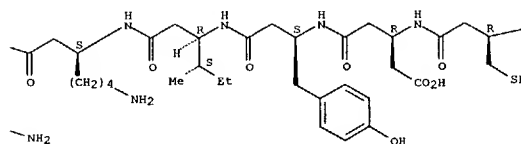
CRN 470461-73-5  
 CMF C134 H215 N25 O29 S

Absolute stereochemistry.

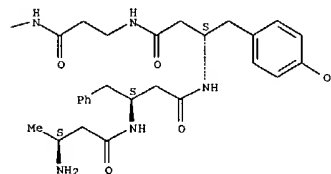
PAGE 1-A



PAGE 1-B



PAGE 1-C



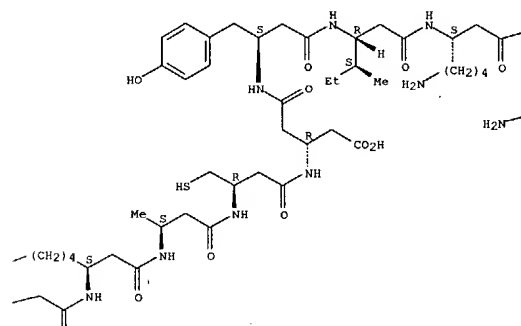
CM 2

CRN 76-05-1  
 CMF C2 H F3 O2

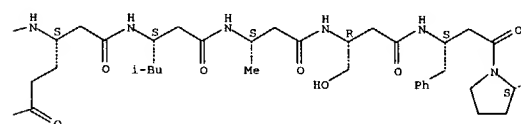


RN 470461-74-6 CAPLUS  
 CN 2-Pyrrolidineacetic acid,  
 1-[(3S,7R,11S,15S,19S,23S,27R,31S,35R,39R,43S,47S,51S,55S,59R,63S,67R,71S,75R,79S)-79-amino-23,47,71-tris(4-aminobutyl)-19-(3-amino-3-oxopropyl)-35-(carboxymethyl)-75-[(1R)-1-hydroxyethyl]-7,59-bis(hydroxymethyl)-31-[(4-hydroxyphenyl)methyl]-39-(mercaptomethyl)-11,43-dimethyl-67-(1-methylethyl)-27-[(1S)-1-methylpropyl]-15,55-bis(2-methylpropyl)-1,5,9,13,17,21,25,29,33,37,41,45,49,53,57,61,65,69,73,77-eicosaaxo-3,51,63-tris(phenylmethyl)-4,8,12,16,20,24,28,32,36,40,44,48,52,

PAGE 1-B

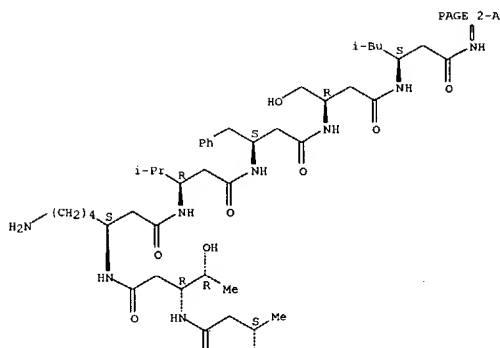


PAGE 1-C



PAGE 1-D





PAGE 2-B



PAGE 3-A



CM 2

CRN 76-05-1  
CMF C2 H F3 O2



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

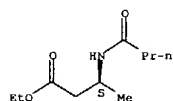
L14 ANSWER 241 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN

AB The Candida antarctica lipase B-catalyzed reactions of five  $\beta$ -amino esters with neat Bu butanoate and with 2,2,2-trifluoroethyl butanoate in diisopropyl ether were studied, as were the reactions of the same  $\beta$ -amino esters and their N-butanamides with neat butanol. The possibility for sequential resolution, where the amino and ester functions of the substrate both react with an achiral butanoate, became less likely with increasing size of the substrate from Et 3-aminobutanoate to pentanoate or larger. On the other hand, the alcoholizes of N-acylated  $\beta$ -amino esters successfully proceeded in butanol with E>100. Gram-scale resolution of the N-butanoylated was performed to demonstrate the usefulness of the method.

ACCESSION NUMBER: 2002:523211 CAPLUS  
DOCUMENT NUMBER: 137:310500  
TITLE: Structural effects on chemo- and enantioselectivity of  
Candida antarctica lipase B - resolution of  $\beta$ -amino esters  
AUTHOR(S): Gedey, Szilvia; Liljebblad, Arto; Lazar, Laszlo; Fulop, Ferenc; Kanerva, Liisa T.  
CORPORATE SOURCE: Laboratory of Synthetic Drug Chemistry and Department of Chemistry, University of Turku, Turku, FIN-20520, Finland  
SOURCE: Canadian Journal of Chemistry (2002), 80(6), 565-570  
CODEN: CJCHAG; ISSN: 0008-4042  
PUBLISHER: National Research Council of Canada  
DOCUMENT TYPE: Journal  
LANGUAGE: English

IT 470707-07-4P  
RL: FRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(structural effects on chemo and enantioselectivity of Candida antarctica lipase B and resolution of  $\beta$ -amino esters)  
RN 470707-07-4 CAPLUS  
CN Butanoic acid, 3-[(1-oxobutyl)amino]-, ethyl ester, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L14 ANSWER 242 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN

AB The importance of hydrogen bonding in  $\beta$ -peptide 314-helices is demonstrated by an NMR anal. of three  $\beta$ -heptadepsipeptides containing a 3-hydroxybutanoic residue in position 2, 4 or 6.

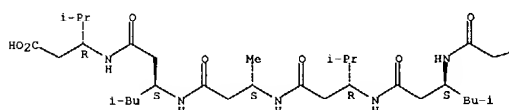
ACCESSION NUMBER: 2002:517314 CAPLUS  
DOCUMENT NUMBER: 138:39521  
TITLE:  $\beta$ -Depsipeptides - the effect of a missing and a weakened hydrogen bond on the stability of the  $\beta$ -peptidic 314-helix  
AUTHOR(S): Seebach, Dieter; Mahajan, Yogesh R.; Senthilkumar, Ramanathan; Rueping, Magnus; Jaun, Bernhard  
CORPORATE SOURCE: Laboratorium fuer Organische Chemie der Eidgenoessischen Technischen Hochschule, ETH-Honggerberg, Zurich, CH-8093, Switz.  
SOURCE: Chemical Communications (Cambridge, United Kingdom) (2002), (15), 1598-1599  
CODEN: CHCOFS; ISSN: 1359-7345  
PUBLISHER: Royal Society of Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:39521  
IT 478867-08-2P 478867-09-3P

RL: FRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(hydrogen bonding in  $\beta$ -peptide 314-helices by NMR of  $\beta$ -heptadepsipeptides containing hydroxybutanoic residue)

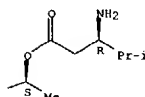
RN 478867-08-2 CAPLUS  
CN 24-Oxa-4,8,12,16,20-pentaazanonacosanoic acid, 27-amino-11,23,28-trimethyl-  
3,15-bis(1-methylethyl)-7,19-bis(2-methylpropyl)-5,9,13,17,21,25-hexaoxo-, (3R,7S,11S,15R,19S,23S,27R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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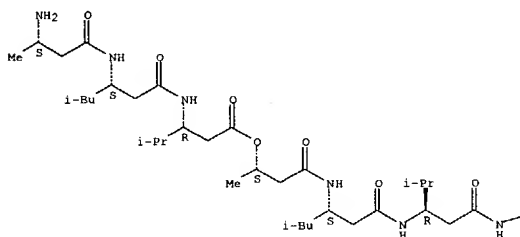


RN 478867-09-3 CAPLUS

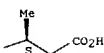
L14 ANSWER 242 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
 CN 16-Oxa-4,8,12,20,24-pentaazaocacosanoic acid,  
 27-amino-3,15-dimethyl-7,19-  
 bis[1-methylethyl]-11,23-bis(2-methylpropyl)-5,9,13,17,21,25-hexaoxo-,  
 (3S,7R,11S,15S,19R,23S,27S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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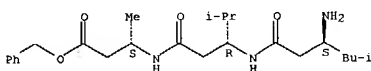


IT 478867-11-7 478867-12-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (hydrogen bonding in  $\beta$ -peptide 314-helices by NMR of  
 $\beta$ -heptadepsipeptides containing hydroxybutanoic residue)  
 RN 478867-11-7 CAPLUS  
 CN Hexanoic acid,  
 5-methyl-3-[[[(3S)-1-oxo-3-[[[(phenylmethoxy)carbonyl]amino]b  
 utyl]amino]-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

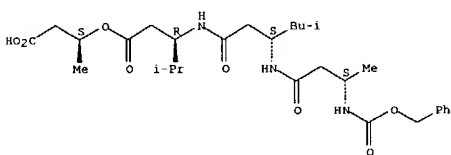
L14 ANSWER 242 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
 methyl-1-oxopentyl]amino]-, phenylmethyl ester, (3S)- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry.



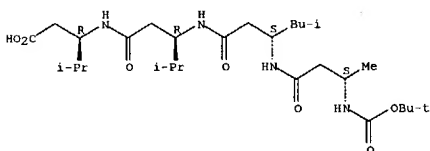
RN 478867-23-1 CAPLUS  
 CN 14-Oxa-2,6,10-triazaheptadecanedioic acid, 3,15-dimethyl-11-(1-  
 methylethyl)-7-(2-methylpropyl)-5,9,13-trioxo-, 1-(phenylmethyl) ester,  
 (3S,7S,11R,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



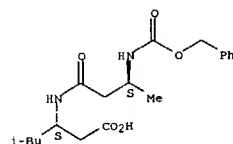
RN 478867-28-6 CAPLUS  
 CN 2,6,10,14-Tetrazaheptadecanedioic acid,  
 3-methyl-11,15-bis(1-methylethyl)-  
 7-(2-methylpropyl)-5,9,13-trioxo-, 1-(1,1-dimethylethyl) ester,  
 (3S,7S,11R,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



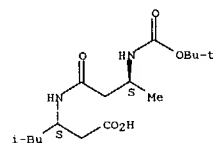
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR  
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 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L14 ANSWER 242 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



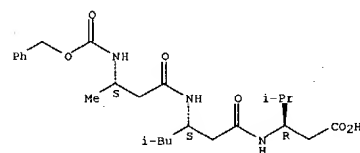
RN 478867-12-8 CAPLUS  
 CN Hexanoic acid, 3-[[[(3S)-3-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-  
 oxobutyl]amino]-5-methyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 478867-19-5P 478867-21-9P 478867-23-1P  
 478867-28-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (hydrogen bonding in  $\beta$ -peptide 314-helices by NMR of  
 $\beta$ -heptadepsipeptides containing hydroxybutanoic residue)  
 RN 478867-19-5 CAPLUS  
 CN 2-Oxa-4,8,12-triazapentadecan-15-oic acid, 5-methyl-13-(1-methylethyl)-9-  
 (2-methylpropyl)-3,7,11-trioxo-1-phenyl-, (5S,9S,13R)- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry.



RN 478867-21-9 CAPLUS  
 CN Butanoic acid, 3-[[[(3R)-3-[[[(3S)-3-amino-5-methyl-1-oxohexyl]amino]-4-

L14 ANSWER 243 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB The clandestine synthesis of ring and side chain modified  
 phenylisopropylamines continues to be a major source of these drugs of  
 abuse. One method used for the synthesis of the amphetamine and related  
 compds. involves the treatment of the appropriate ketone with formamide  
 or ammonium formate followed by acid hydrolysis of intermediate N-formyl  
 derivative. In this paper the synthesis of 4-methoxyamphetamine (I, PMA)  
 by the Leuckart method is investigated. The identification by means of gas  
 chromatog.-mass spectrometry (GC-MS) of methoxy derivative of  
 N-( $\beta$ -phenylisopropyl)benzalimine, methoxy derivative of  
 N-( $\beta$ -phenylisopropyl)benzyl Me ketimine, 1-(4-methoxyphenyl)-N-(4-  
 methoxybenzyl)-2-propanamine, (RR/SS) and (RS)  
 1-(4-methoxyphenyl)-N-[2-(4-  
 methoxyphenyl)-1-methylethyl]-2-propanamine, (RR/SS) and  
 (RS)-1-(4-methoxyphenyl)-N-methyl-N-[2-(4-methoxyphenyl)-1-methylethyl]-2-  
 propanamine, (RR/SS) and (RS)-1-(4-methoxyphenyl)-N-formyl-N-[2-(4-  
 methoxyphenyl)-1-methylethyl]-2-propanamine in crude PMA, are reported.  
 The identity of these compds. was confirmed by independent synthesis of  
 reference compds. The NMR, MS, IR data, stereochem. and some chromatog.  
 properties of synthesized compds. are discussed. Finally, the results of  
 the GC-MS anal. of illicitly prepared tablets, containing PMA I and  
 4-methoxymethamphetamine (II, PMMA), are outlined. The presence of  
 4-methoxydimethylamphetamine (III), 4-methoxyethylamphetamine(IV), and  
 4-hydroxymethamphetamine are reported in these tablets. The identity of  
 II, III, and IV was confirmed by their independent synthesis.

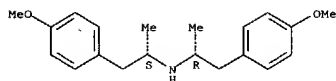
ACCESSION NUMBER: 2002:49850 CAPLUS  
 DOCUMENT NUMBER: 138:132317  
 TITLE: Identification and synthesis of some contaminants  
 present in 4-methoxyamphetamine (PMA) prepared by the  
 Leuckart method  
 AUTHOR(S): Blachut, Dariusz; Wojtasiewicz, Krystyna; Czarnocki,  
 Zbigniew  
 CORPORATE SOURCE: Department of Criminalistics, Office of the State  
 Protection, Warsaw, 02-134, Pol.  
 SOURCE: Forensic Science International (2002), 127(1-2),  
 45-62  
 PUBLISHER: CODEN: FSINDR; ISSN: 0379-0738  
 DOCUMENT TYPE: Elsevier Science Ireland Ltd.  
 LANGUAGE: English  
 IT 475994-71-9P 475994-72-0P

RL: BYP (Byproduct); PRP (Properties); SPN (Synthetic preparation); PREP  
 (Preparation)  
 (identification and synthesis of some contaminants present in  
 methoxyamphetamine prepared by Leuckart method)

RN 475994-71-9 CAPLUS  
 CN Benzeneethanamine, 4-methoxy-N-[1(R)-2-(4-methoxyphenyl)-1-methylethyl]-  
 $\alpha$ -methyl-, ( $\alpha$ S)-rel- (9CI) (CA INDEX NAME)

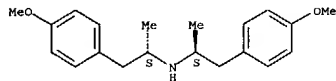
Relative stereochemistry.

L14 ANSWER 243 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 475994-72-0 CAPLUS  
CN Benzeneethanamine, 4-methoxy-N-[(1R)-2-(4-methoxyphenyl)-1-methylethyl]-  
α-methyl-, (αR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR  
THIS  
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

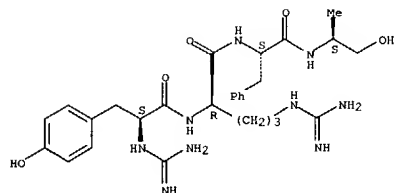
L14 ANSWER 244 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
AB In investigating the development of compds. with potent analgesic effects  
after oral administration, 74 C-terminal analogs (Na-amidino-Tyr-D-  
Arg-Phe-X), based on the structure of Na-amidino-Tyr-D-Arg-Phe-  
MeβAla-OH (ADAMB), were synthesized. Their analgesic activity was  
evaluated using the mouse-tail pressure test after both s.c. and oral  
administration, and the structure-activity relationships (SAR) were  
examined in detail. The results clearly indicated that compds. containing  
β-amino acid without a side chain at the X position are preferable for expression  
of potent analgesic activity, and that the free carboxyl group is  
superior in its analgesic activity to that of the esterified or amidated carboxy  
group at the C-terminal. In addition, N-methylation of the amide bond  
at the 4th position contributed to improved analgesic activity. These results  
indicated that the strong and long-lasting analgesic effect of ADAMB is  
expressed by the synergistic effects of Na-amidination, the  
N-methylation of the amide bond at the 4th position and the carbon chain  
length (β-Ala) of the residue at the 4th position, and that this is  
the most suitable structure.  
ACCESSION NUMBER: 2002:497653 CAPLUS  
DOCUMENT NUMBER: 138:49390  
TITLE: Structure-activity relationships (SAR) of  
[D-Arg2]dermorphin(1-4) analogues,  
Na-amidino-Tyr-D-Arg-Phe-X  
AUTHOR(S): Ogawa, Tadashi; Miyamae, Tetsuhisa; Okayama, Toru;  
Hagiwara, Masaki; Sakurada, Shinobu; Morikawa,  
Tadanori  
CORPORATE SOURCE: Research Institute, Daiichi Fine Chemical Co., Ltd.,  
Toyama, 933-8511, Japan  
SOURCE: Chemical & Pharmaceutical Bulletin (2002), 50(6),  
771-780  
CODEN: CPBTAL; ISSN: 0009-2363  
PUBLISHER: Pharmaceutical Society of Japan  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:49390  
IT 479210-69-0P 479210-71-4P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(preparation and structure-activity relationships of dermorphin  
analogues)  
RN 479210-69-0 CAPLUS  
CN L-Phenylalaninamide, N-(aminoininomethyl)-L-tyrosyl-D-arginyl-N-[(1S)-2-  
hydroxy-1-methylethyl]-, diacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 479205-52-2  
CMF C28 H41 N9 O5

Absolute stereochemistry.

L14 ANSWER 244 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



CM 2

CRN 64-19-7  
CMF C2 H4 O2

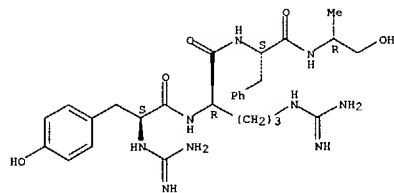


RN 479210-71-4 CAPLUS  
CN L-Phenylalaninamide, N-(aminoininomethyl)-L-tyrosyl-D-arginyl-N-[(1S)-2-  
hydroxy-1-methylethyl]-, diacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 479205-54-4  
CMF C28 H41 N9 O5

Absolute stereochemistry.



CM 2

L14 ANSWER 244 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

CRN 64-19-7  
CMF C2 H4 O2



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR  
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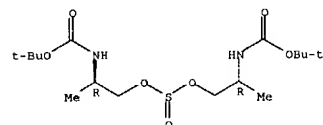


AB BOC- and dibenzosuberyl-protected chiral and hindered cyclic sulfamidates ((1,2,3)oxathiazolidine 2,2-dioxides, e.g., I) were synthesized and subsequently deprotected using trifluoroacetic acid. The resulting crystalline sulfamidates were then used in several alkylation reactions involving benzyl bromide and alcs. in a versatile route to cyclic sulfamidates with differing N-alkyl substituents.

ACCESSION NUMBER: 2002:488378 CAPLUS  
DOCUMENT NUMBER: 137:201271  
TITLE: New Routes to N-Alkylated Cyclic Sulfamidates  
AUTHOR(S): Posakony, Jeffrey J.; Grierson, John R.; Tewson, Timothy J.  
CORPORATE SOURCE: PET Imaging Center, Department of Radiology, University of Iowa, Iowa City, IA, 52242-1007, USA  
SOURCE: Journal of Organic Chemistry (2002), 67(15), 5164-5169  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 137:201271

IT 454248-43-2P  
RL: BVP (Byproduct); PREP (Preparation) (new routes to N-alkylated cyclic sulfamidates)  
RN 454248-43-2 CAPLUS  
CN 5,7-Dioxo-6-thia-2,10-diazoundecanedioic acid, 3,9-dimethyl-, bis(1,1-dimethylethyl) ester, 6-oxide, (3R,9R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

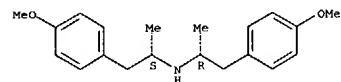


REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS  
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE



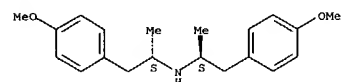
IT 475994-71-9P 475994-72-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation from p-methoxyamphetamine and p-methoxyphenylacetone by Leuckart method)  
RN 475994-71-9 CAPLUS  
CN Benzenethanamine, 4-methoxy-N-[(1R)-2-(4-methoxyphenyl)-1-methylethyl]-α-methyl-, (αS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 475994-72-0 CAPLUS  
CN Benzenethanamine, 4-methoxy-N-[(1R)-2-(4-methoxyphenyl)-1-methylethyl]-α-methyl-, (αR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 475994-73-1P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation from p-methoxyamphetamine and p-methoxyphenylacetone by Leuckart method and crystal structure)  
RN 475994-73-1 CAPLUS  
CN Benzenethanamine, 4-methoxy-N-[(1R)-2-(4-methoxyphenyl)-1-methylethyl]-α-methyl-, hydrochloride, (αS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L14 ANSWER 246 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
AB The synthesis and separation of both diastereoisomers of 1-(4-methoxyphenyl)-N-[2-(4-methoxyphenyl)-1-methylethyl]-2-propanamine as markers of clandestine p-methoxyamphetamine were described. The stereochem. of the meso diastereomer was established by crystallog. method [monoclinic, P2<sub>1</sub>/n, a 7.315(5), b 30.19(2), c 8.817(8)Å, β 95.73(7)°, V 1937(3) Å<sup>3</sup>, Z 4].

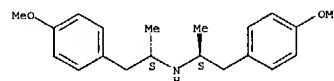
ACCESSION NUMBER: 2002:487061 CAPLUS  
DOCUMENT NUMBER: 137:384595  
TITLE: (2S)-1-(4-Methoxyphenyl)-N-[(1R)-2-(4-methoxyphenyl)-1-methylethyl]-2-propanamine in crude p-methoxyamphetamine (PMA) produced by the Leuckart method

AUTHOR(S): Blachut, Dariusz; Maurin, Jan K.; Starosta, Wojciech; Wojtasiewicz, Krystyna; Czarnocki, Zbigniew  
CORPORATE SOURCE: Department of Criminalistics, Office of the State Protection, Warsaw, 02-134, Pol.  
SOURCE: Zeitschrift fuer Naturforschung, B: Chemical Sciences (2002), 57(5), 593-597  
CODEN: ZNBSEN; ISSN: 0932-0776  
PUBLISHER: Verlag der Zeitschrift fuer Naturforschung  
DOCUMENT TYPE: Journal  
LANGUAGE: German

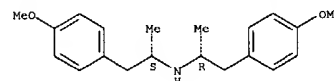
IT 475994-74-2P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation from 1-(4-Methoxyphenyl)-N-[2-(4-methoxyphenyl)-1-methylethyl]-2-propanamine obtained from p-methoxyamphetamine and p-methoxyphenylacetone by Leuckart method)  
RN 475994-74-2 CAPLUS  
CN Benzenethanamine, 4-methoxy-N-[(1R)-2-(4-methoxyphenyl)-1-methylethyl]-α-methyl-, (αR)-rel-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1  
CRN 475994-72-0  
CMF C20 H27 N O2

Relative stereochemistry.

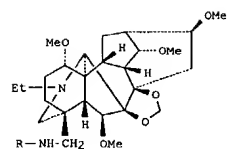


CM 2  
CRN 7664-93-9  
CMF H2 O4 S



● HCl

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS  
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

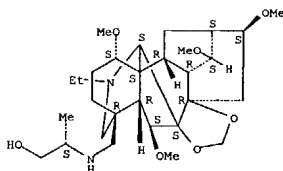


AB Reduction of elatidal oxime and imines based on methylamine, ethanolamine, tyramine, and S- and (t)-alaninolols gave rise to the 18-amino-18-deoxy derivs. of elatidine, I [R = H, CH<sub>2</sub>CH<sub>2</sub>OH, (S)-CHMeCH<sub>2</sub>OH, etc.].  
ACCESSION NUMBER: 2002:483906 CAPLUS  
DOCUMENT NUMBER: 137:279347  
TITLE: Study of alkaloids of the Siberian and Altai flora.  
7.

Synthesis of 18-amino-18-deoxy derivatives of elatidine  
AUTHOR(S): Ganbaatar, J.; Batsuren, D.; Osadchii, S. A.; Shults, E. E.; Tolstikov, G. A.  
CORPORATE SOURCE: Institute of Chemistry and Chemical Technology, Mongolian Academy of Sciences, Ulan-Bator, 211051, Mongolia  
SOURCE: Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (2002), 51(3), 531-534  
CODEN: RCBUEY; ISSN: 1066-5285  
PUBLISHER: Kluwer Academic/Consultants Bureau  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 464881-02-5P 464881-05-8P

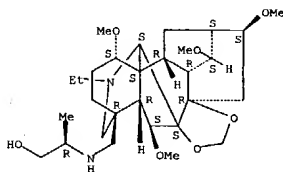
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of aminodeoxy derivs. of elatidine via reduction of elatidal oxime and imines)  
RN 464881-02-5 CAPLUS  
CN 1-Propanol, 2-[[[10,6β,14α,16β]-20-ethyl-1,6,14,16-tetramethoxy-7,8-[methylenebis(oxy)]aconitan-4-yl]methyl]amino]-, (2S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 464881-05-8 CAPLUS  
CN 1-Propanol, 2-[[[10,6β,14α,16β]-20-ethyl-1,6,14,16-tetramethoxy-7,8-[methylenebis(oxy)]aconitan-4-yl]methyl]amino]-, (2R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS  
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

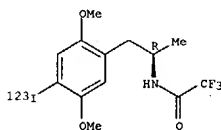
AB Our goal was to synthesize with high specific activity R(-)-1-(2,5-Dimethoxy-4-[123I]iodophenyl)-2-aminopropane [R(-)-[123I]DOI], an in vitro potent and selective 5-HT<sub>2A/2C</sub> serotonin agonist, and study in vivo its plasma pharmacokinetics and brain distribution in baboon by SPECT. The purpose was to evaluate this radiotracer as a potential tool in discerning the role of the agonist high affinity state of 5-HT<sub>2</sub> receptors in depression and other neurol. disorders. The radiotracer was prepared by electrophilic radioiodination of the N-trifluoroacetyl precursor of R(-)-1-(2,5-Dimethoxyphenyl)-2-aminopropane [R(-)-DMA-TFA] with high-purity sodium [123I]iodide in the presence of chloramine-T, followed by amino deprotection with KOH in isopropanol (labeling yield: 73%, radiochem. yield: 62%, radiochem. purity: 99%). In vivo studies in baboon showed high accumulation of radioactivity in thalamus, the frontoparietal cortex, temporal, occipital and the striatum regions, with slightly lower accumulation in the midbrain and cerebellum. Ketanserin did not displaced the radioactivity in any of these brain regions. Plasma metabolite anal. was performed using methanol protein precipitation, the methanol fractions contained from 68% to 92% of the mixture of a labeled metabolite and parent compound. The recovery coefficient of unmetabolized R(-)-[123I]DOI was 68%. The percent parent compound present in the extracted fraction, measured by HPLC, decreased gradually with time from 99.8% to 0.3% still present after 4.7 h post injection whereas the percentage of the only one detected metabolite increased conversely. Free fraction determination (f<sub>1</sub>), was 31 ± 0.9% (n = 3). For comparison purposes, ex-vivo brain distribution, displacement and metabolite anal. was also carried out in rodents. Although R(-)-[123I]DOI displayed good brain uptake and localized in serotonergic areas of the brain, its target to non target ratio and its insensitivity to ketanserin displacement suggest high nonspecific uptake, therefore non potentially useful as brain imaging radiotracer for visualization of the agonist high-affinity state of 5-HT<sub>2A</sub> receptors and for visualizing 5-HT<sub>2C</sub> receptors by SPECT.

ACCESSION NUMBER: 2002:476219 CAPLUS  
DOCUMENT NUMBER: 138:165760  
TITLE: Pharmacokinetics and brain distribution in non human primate of R(-)-[123I]DOI, A 5HT<sub>2A/2C</sub> serotonin agonist  
AUTHOR(S): Zea-Ponce, Yolanda; Kegeles, Lawrence S.; Guo, Mingning; Raskin, Leonid; Bakthavachalam, Venkatesalu;  
CORPORATE SOURCE: Laruelle, Marc  
Departments of Psychiatry and Radiology, Columbia University College of Physicians and Surgeons, New York, NY, USA  
SOURCE: Nuclear Medicine and Biology (2002), 29(5), 575-583  
CODEN: NMBLEO; ISSN: 0969-8051  
PUBLISHER: Elsevier Science Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 497182-37-3P

L14 ANSWER 248 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(pharmacokinetics and brain distribution of R(-)-[123I]DOI, A 5HT<sub>2A/2C</sub> serotonin agonist)

RN 497182-37-3 CAPLUS  
CN Acetamide, 2,2,2-trifluoro-N-[(1R)-2-[4-(iodo-123I)-2,5-dimethoxyphenyl]-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS  
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

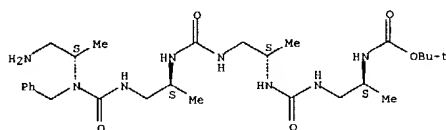
L14 ANSWER 249 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Square-shaped hydrogen-bonded polar nanotubes are formed when the C4-sym. all-*S* cyclo-tetraurea bearing side chains of alanine self-assembles in the solid state. The four urea fragments in the macrocycle present an all-*trans* planar conformation with an unidirectional alignment of all the carbonyl groups. The anisotropy is further maintained in the crystal as neighboring tubes are all arranged in the same direction.

ACCESSION NUMBER: 2002:471573 CAPLUS  
 DOCUMENT NUMBER: 137:294567  
 TITLE: Self-assembling organic nanotubes from enantiopure cyclo-N,N'-linked oligoureas: Design, synthesis, and crystal structure

AUTHOR(S): Semetey, Vincent; Didierjean, Claude; Briand, Jean-Paul; Aubry, Andre; Guichard, Gilles  
 CORPORATE SOURCE: Immunologie et Chimie Therapeutiques, UPR CNRS 9021 Institut de Biologie Moleculaire et Cellulaire, Strasbourg, 67084, Fr.  
 SOURCE: Angewandte Chemie, International Edition (2002), 41(11), 1895-1898  
 CODEN: ACIEF5; ISSN: 1433-7851  
 PUBLISHER: Wiley-VCH Verlag GmbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 467424-41-5P 467424-48-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis and crystallog. of self-assembling organic nanotubes from enantiopure cyclo-N,N'-linked oligoureas)

RN 467424-41-5 CAPLUS  
 CN 2,5,7,10,12,15,17-Heptaazanonadecanoic acid, 19-amino-3,8,13,18-tetramethyl-6,11,16-trioxo-17-(phenylmethyl)-, 1,1-dimethylethyl ester, conjugate monoacid, (3S,8S,13S,18S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

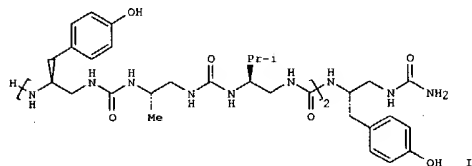


• H<sup>+</sup>

RN 467424-48-2 CAPLUS  
 CN 2,5,7,10-Tetraazoundecanediamic acid, N1-[(2S)-2-aminopropyl]-N11-[(1S)-2-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]amino]-1-methylethyl]-3,8-dimethyl-6-oxo-N11-(phenylmethyl)-, conjugate monoacid, (3S,8S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L14 ANSWER 250 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 GI



AB The solution structure of heptaurea I bearing side chains of natural amino acids Ala, Val, and Tyr is reported. Oligourea I was prepared by solid-phase synthesis and its structure was investigated by 1D and 2D NMR spectroscopy. The spin systems of all seven residues were identified from DQF-COSY and TOCSY expts., the sequence and three-dimensional structure of I were assigned on the basis of ROESY expts. Chemical shifts and coupling consts. for backbone protons of residue 3 strongly suggested that oligourea I adopts in solns. a well-defined right-handed 2.5 helical secondary structure with the simultaneous presence of 12- and 14-membered hydrogen-bonded rings.

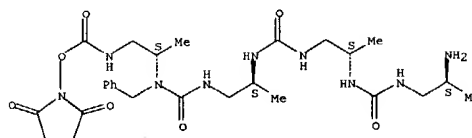
ACCESSION NUMBER: 2002:471572 CAPLUS  
 DOCUMENT NUMBER: 137:217233  
 TITLE: Stable helical secondary structure in short-chain N,N'-linked oligoureas bearing proteinogenic side chains

AUTHOR(S): Semetey, Vincent; Rognan, Didier; Hemmerlin, Christine; Graff, Roland; Briand, Jean-Paul; Marraud, Michel; Guichard, Gilles  
 CORPORATE SOURCE: Immunologie et Chimie Therapeutiques, UPR CNRS 9021 Institut de Biologie Moleculaire et Cellulaire, Strasbourg, 67084, Fr.  
 SOURCE: Angewandte Chemie, International Edition (2002), 41(11), 1893-1895  
 CODEN: ACIEF5; ISSN: 1433-7851  
 PUBLISHER: Wiley-VCH Verlag GmbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 137:217233  
 IT 455323-81-6P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (solid-phase synthesis and three-dimensional helical secondary structure of heptaurea in solns.)

RN 455323-81-6 CAPLUS  
 CN 2,5,7,10,12,15,17,20,22,25,27,30-Dodecaazahentriacontanediamic acid, N1-[(2S)-2-amino-3-(4-hydroxyphenyl)propyl]-13,28-bis[(4-

Page 51

L14 ANSWER 249 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



• H<sup>+</sup>

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L14 ANSWER 250 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

hydroxyphenyl)methyl]-3,18-dimethyl-8,23-bis(1-methylethyl)-6,11,16,21,26-penta-oxo-, (3S,8S,13S,18S,23S,28S)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

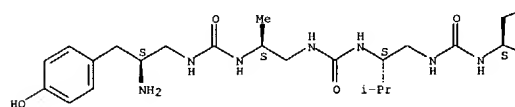
CM 1

CRN 270575-79-6

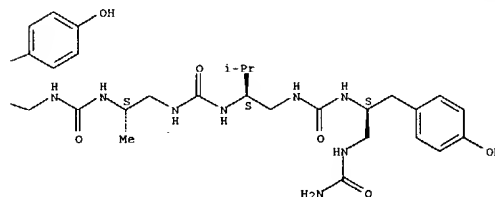
CMF C50 H79 N15 O10

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CM 2

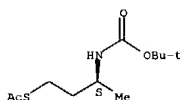
CRN 76-05-1

CMF C2 H F3 O2



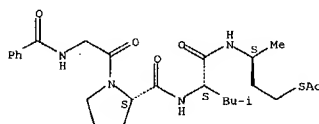
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L14 ANSWER 251 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
AB Fibroblast collagenase (MMP-1), a member of the matrix metalloproteinases family, is believed to be a pathogenesis of arthritis, by cleaving triple-helical type II collagen in cartilage. From the similarity of the active site zinc binding mode with hydroxamate, we designed and synthesized  $\alpha$ -mercaptocarbonyl possessing compds. which incorporated various peptide sequences as enzyme recognition sites. The P4-P1 peptide incorporating compound (S)-Ph-C(O)-Gly-Pro-Leu-NHCH(CH<sub>3</sub>)C(O)CH<sub>2</sub>SH (1) exhibited as potent inhibition as the hydroxamate and the carboxylate type inhibitors, with an IC<sub>50</sub> of 10<sup>-6</sup> M order against MMP-1. But the inhibitor I related compds. in which terminal C(O)CH<sub>2</sub>SH was replaced by (CH<sub>2</sub>)<sub>2</sub>SH, C(O)(CH<sub>2</sub>)<sub>2</sub>SH, or CH(OH)CH<sub>2</sub>SH, displayed decreased or no inhibitory potencies. These results suggest that the existence of both the carbonyl and thiol groups might be critical for the inhibition, and the distance between the two functional groups is important for inhibitory potency. Several Pn' peptide incorporating compds. showed IC<sub>50</sub> values under sub-nanomolar. Among them, for potent inhibition, Leu was better than Phe and Val as the P1' amino acid, and the P2' position amino acid was necessary, and preferentially Phe. Substitution of the mercapto group with other functional groups lost the activity of unsubstituted compound. The stereochem. preference at the thiol-attached position was also determined. It was found that the S configuration compound is approx. 100 times more potent than the corresponding R-isomer.  
ACCESSION NUMBER: 2002:469786 CAPLUS  
DOCUMENT NUMBER: 137:232899  
TITLE: Design and synthesis of sulfur based inhibitors of matrix metalloproteinase-1  
AUTHOR(S): Fujisawa, Tetsunori; Odake, Shinjiro; Ogawa, Yui; Yasuda, Junko; Morita, Yasuo; Morikawa, Tadanori  
CORPORATE SOURCE: Research Institute, Fuji Chemical Industries, Ltd., Toyama, 933-8511, Japan  
SOURCE: Chemical & Pharmaceutical Bulletin (2002), 50(2), 239-252  
CODEN: CPBTAL; ISSN: 0009-2363  
PUBLISHER: Pharmaceutical Society of Japan  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 137:232899  
IT 458531-55-0P 458531-63-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction of in the preparation of peptide-mercapto compds.)  
RN 458531-55-0 CAPLUS  
CN Ethanthethioic acid, S-[(3S)-3-[[[(1,1-dimethylethoxy)carbonyl]amino]butyl] ester (9CI) (CA INDEX NAME)  
Absolute stereochemistry. Rotation (-).



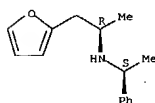
RN 458531-63-0 CAPLUS  
CN L-Leucinamide, N-benzoylglycyl-L-prolyl-N-[(1S)-3-(acetylthio)-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



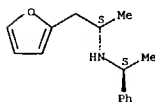
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L14 ANSWER 252 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
AB The preparation of enantiomerically pure  $\delta$ - and  $\gamma$ -sultams by intramol. [4+2] cycloaddn. of N-1-phenylethyl substituted vinylsulfonamides with purely thermal activation and under high pressure was discussed. An optimized procedure for reductive debenzoylation of the resultant  $\delta$ -sultams is also reported.  
ACCESSION NUMBER: 2002:456635 CAPLUS  
DOCUMENT NUMBER: 138:24684  
TITLE: Preparation of enantiopure sultams by intramolecular Diels-Alder reaction of furan-containing vinylsulfonamides  
AUTHOR(S): Rogatchov, Viktor O.; Bernsmann, Heiko; Schwab, Pia; Fröhlich, Roland; Wibel, Birgit; Metz, Peter  
CORPORATE SOURCE: Institut für Organische Chemie, Technische Universität  
SOURCE: Dresden, Dresden, D-01069, Germany  
Tetrahedron Letters (2002), 43(27), 4753-4756  
CODEN: TELEAY; ISSN: 0040-4039  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:24684  
IT 477788-38-8 477788-40-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of racemic furan derivs. as starting materials in synthesis of enantiopure sultams)  
RN 477788-38-8 CAPLUS  
CN 2-Furanethanamine,  $\alpha$ -methyl-N-[(1S)-1-phenylethyl]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)  
Absolute stereochemistry.



RN 477788-40-2 CAPLUS  
CN 2-Furanethanamine,  $\alpha$ -methyl-N-[(1S)-1-phenylethyl]-, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

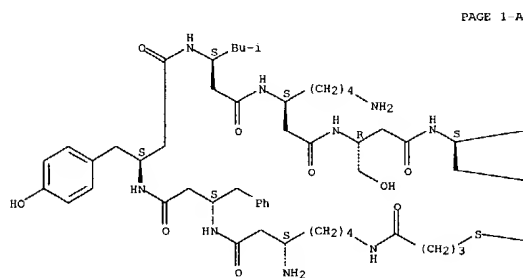


REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

141 ANSWER 253 of 262 CAPLUS COPYRIGHT 2004 ACS on STW  
AB The structural properties of an all- $\beta$ -3-dodecapeptide with the  
sequence H- $\beta$ -HLys-(N.vapsin)-CO(CH<sub>2</sub>)3-S-Acm)- $\beta$ -H-Phe- $\beta$ -H Tyr-  
 $\beta$ -HLeu- $\beta$ -HLys- $\beta$ -HSer- $\beta$ -HLys- $\beta$ -H-Phe- $\beta$ -HSer-  
 $\beta$ -HVal- $\beta$ -HLys- $\beta$ -HAla-OH (1) have been studied by  
two-dimensional homonuclear 1H-NMR and by CD spectroscopy. In MeOH  
solution,  
high-resolution NMR spectroscopy showed that the  $\beta$ -dodecapeptide forms  
an (M)-314-helix, and the CD spectrum corresponds to the pattern expected  
for an (M)-314-helical secondary structure. In aqueous solution,  
however, the  
peptide adopts a predominantly extended conformation without regular  
secondary-structure elements, which is in agreement with the absence of  
the characteristic trough near 215 nm in the CD spectrum. The NMR and CD  
measurements with soins. of 1 in MeOH containing 3M urea further  
indicated  
that the peptide retains the regular secondary structural elements under  
these conditions, whereas, after addition of 40% (volume/volume) H<sub>2</sub>O to  
the MeOH  
solution, the large 1H-chemical-shift dispersion indicative of a defined  
spatial  
peptide fold was lost. The  $\beta$ 3-dodecapeptide is - so far - the  
longest  $\beta$ -peptide shown to adopt a regular (M)-314-helix conformation  
in an organic solvent. The observation that the structure of this long  
 $\beta$ 3-peptide is not maintained in aqueous solution indicates that the  
(M)-314-fold is primarily stabilized by short-range interactions.

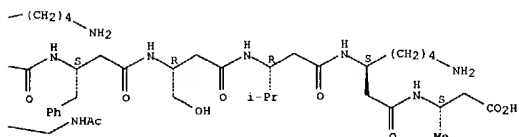
ACCESSION NUMBER: 2002:451932 CAPLUS  
DOCUMENT NUMBER: 137:201596  
TITLE: NMR-structural investigations of a  
 $\beta$ -3-dodecapeptide with proteinoogenic side chains  
in methanol and in aqueous solutions  
AUTHOR(S): Etezady-Estefarjani, Touraj; Hilty, Christian;  
Wuerthrich, Kurt; Kueping, Magnus; Schreiber, Juerg;  
Esebach, Dieter  
CORPORATE SOURCE: Institut fuer Molekularbiologie und Biophysik,  
Eidgenossischen Technischen Hochschule Zurich,  
Zurich,  
CH-8093, Switz.  
SOURCE: Helvetica Chimica Acta (2002), 85(5), 1197-1209  
CODEN: HCACAV; ISSN: 0018-019X  
PUBLISHER: Verlag Helvetica Chimica Acta  
DOCUMENT TYPE: Journal  
LANGUAGE: English

IT 454486-18-1P  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC  
(Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC  
(Process)  
(secondary and tertiary structure of prepared on solid phase  
 $\beta$ -3-dodecapeptide in methanol and in aqueous soins. by NMR, CD and  
statistical calcn.)  
RN 454486-18-1 CAPLUS  
CN 5-Thia-3,10,18,22,26,30,34,38,42,46,50,54,58-tridecaazahenhexacontan-61-  
15-amino-31,39,55-tris(4-aminobutyl)-35,47-bis(hydroxymethyl)-23-  
[[4-(hydroxyphenyl)methyl]-59-methyl-51-(1-methylthyl)-27-(2-methylpropyl)-  
2,9,17,21,25,29,33,37,41,45,49,53,57-tridecaoxo-19,43-bis(phenylmethyl)-,  
(155,195,235,275,315,35R,39S,43R,47R,51R,55S,59S)] (9CI) [CA INDEX NAME]

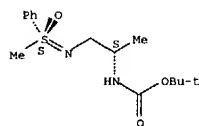


PAGE 1-A

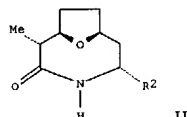
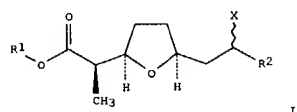
PAGE 1-B



REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR  
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RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

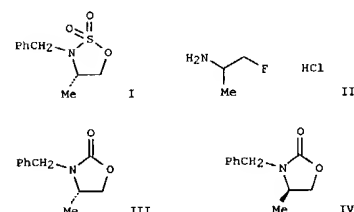


REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT



AB Novel THF-amino acids were efficiently synthesized from actic acid Me esters. The conformational restriction imposed by the 2,5-cis-disubstituted THF moiety is apparent from their facile cyclization to give medium-sized lactams. Thus, treatment of actic acid Me ester [I; wherein R1 = Me; X = OH; R2 = Me] with triphenylphosphine dibromide gives [I; wherein R1 = Me; X = Br; R2 = Me], which is reacted with sodium azide to give [II; wherein R1 = Me; X = N3; R2 = Me], and after hydrogenation and saponification, [II; wherein R2 = Me] is formed.

ACCESSION NUMBER: 2002:379146 CAPLUS  
DOCUMENT NUMBER: 137:294828  
TITLE: Amino analogs of actic acids-synthesis and lactamization  
AUTHOR(S): Bernsmann, Heiko; Wang, Yuzhou; Frohlich, Roland; Metz, Peter  
CORPORATE SOURCE: Institut für Organische Chemie, Technische Universität  
SOURCE: Dresden, Dresden, D-01069, Germany  
Tetrahedron (2002), 58(22), 4451-4457  
CODEN: TETRA; ISSN: 0040-4020  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 137:294828  
IT 468057-36-5P 468057-37-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of amino analogs of actic acids and their lactamization)  
RN 468057-36-5 CAPLUS  
CN 2-Furanacetic acid, tetrahydro- $\alpha$ -methyl-5-[(2S)-2-[(triphenylmethyl)amino]propyl]-, methyl ester, ( $\alpha$ R,2R,5S)- (9CI)

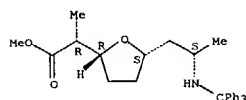


AB N-benzyl [1,2,3]-oxathiazolidine 2,2-dioxides, e.g. I, (cyclic sulfamidates) were synthesized from their corresponding  $\beta$ -amino alcohols and used as substrates in fluorination reactions with tetrabutylammonium fluoride (TBAF). After desulfonation of the intermediates, the N-benzyl fluoroamines were debenzylated by transfer hydrogenolysis with Pd/C to yield (S) and (R)-2-amino-1-fluoropropane hydrochloride salts (II, both with 95% ee). The reactions were carried out on multi-gram scale without the need for chromatog. purification of the intermediates. In the presence of carbonate, the (S)- and (R)-N-benzylfluoroamines underwent intramolecular cyclizations in which fluoride was displaced to yield cyclic carbamates III and IV.

ACCESSION NUMBER: 2002:370219 CAPLUS  
DOCUMENT NUMBER: 137:232363  
TITLE: Fluoroamines via chiral cyclic sulfamidates  
AUTHOR(S): Posakony, Jeffrey J.; Tewson, Timothy J.  
CORPORATE SOURCE: Department of Radiology Imaging Research Laboratory, University of Washington, Seattle, WA, 98195, USA  
SOURCE: Synthesis (2002), (6), 766-770  
CODEN: SYNTH; ISSN: 0039-7881  
PUBLISHER: Georg Thieme Verlag  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 137:232363  
IT 458560-73-1P 458560-75-3P 458560-83-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(fluoroamines via chiral cyclic sulfamidates)  
RN 458560-73-1 CAPLUS  
CN Benzenemethanamine, N-[(1S)-2-fluoro-1-methylethyl]- (9CI) (CA INDEX NAME)

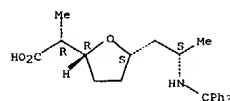
Absolute stereochemistry. Rotation (+).

Absolute stereochemistry. Rotation (-).

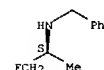


RN 468057-37-6 CAPLUS  
CN 2-Furanacetic acid, tetrahydro- $\alpha$ -methyl-5-[(2S)-2-[(triphenylmethyl)amino]propyl]-, ( $\alpha$ R,2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

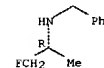


REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT



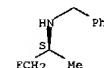
RN 458560-75-3 CAPLUS  
CN Benzenemethanamine, N-[(1R)-2-fluoro-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 458560-83-3 CAPLUS  
CN Benzenemethanamine, N-[(1S)-2-fluoro-1-methylethyl]-, hydrochloride (9CI) (CA INDEX NAME)

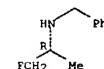
Absolute stereochemistry. Rotation (+).



● HCl

IT 458560-86-6P 458560-91-3P 458560-94-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(fluoroamines via chiral cyclic sulfamidates)  
RN 458560-86-6 CAPLUS  
CN Benzenemethanamine, N-[(1R)-2-fluoro-1-methylethyl]-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

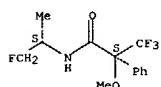


● HCl

RN 458560-91-3 CAPLUS

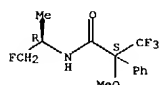
L14 ANSWER 256 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
 CN Benzeneacetamide, N-[(1R)-2-fluoro-1-methylethyl]-α-methoxy-α-(trifluoromethyl)-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 458560-94-6 CAPLUS  
 CN Benzeneacetamide, N-[(1R)-2-fluoro-1-methylethyl]-α-methoxy-α-(trifluoromethyl)-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

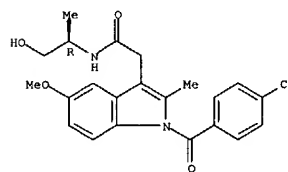


REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L14 ANSWER 257 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Cyclooxygenase inhibition studies with novel indomethacin alkanolamides demonstrate the potential for dramatic differences in inhibitor properties conferred by subtle structural modifications. The transformation of non-selective α-(S)-substituted indomethacin ethanolamides to potent, COX-2 selective inhibitors by simple stereocenter inversion highlights this property.

ACCESSION NUMBER: 2002:287803 CAPLUS  
 DOCUMENT NUMBER: 137:362491  
 TITLE: Enantiospecific, selective cyclooxygenase-2 inhibitors  
 AUTHOR(S): Kozak, Kevin R.; Prusakiewicz, Jeffery J.; Rowlinson, Scott W.; Marnett, Lawrence J.  
 CORPORATE SOURCE: Departments of Biochemistry and Chemistry, Vanderbilt University School of Medicine, Vanderbilt-Ingram Cancer Center and Center in Molecular Toxicology, Nashville, TN, 37232, USA  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(9), 1315-1318  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 475589-54-9 475589-55-0 475589-73-2 475589-74-3 475589-75-4 475589-76-5  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (structure-activity relationship studies of enantiospecific, selective cyclooxygenase-2 inhibitors)  
 RN 475589-54-9 CAPLUS  
 CN 1H-Indole-3-acetamide, 1-(4-chlorobenzoyl)-N-[(1R)-2-hydroxy-1-methylethyl]-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

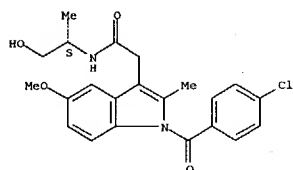
Absolute stereochemistry.



RN 475589-55-0 CAPLUS  
 CN 1H-Indole-3-acetamide, 1-(4-chlorobenzoyl)-N-[(1S)-2-hydroxy-1-methylethyl]-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

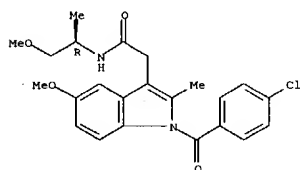
Absolute stereochemistry.

L14 ANSWER 257 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



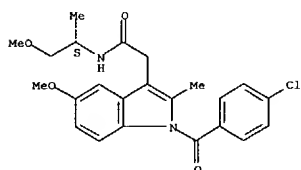
RN 475589-73-2 CAPLUS  
 CN 1H-Indole-3-acetamide, 1-(4-chlorobenzoyl)-N-[(1R)-2-methoxy-1-methylethyl]-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



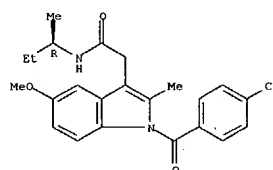
RN 475589-74-3 CAPLUS  
 CN 1H-Indole-3-acetamide, 1-(4-chlorobenzoyl)-N-[(1S)-2-methoxy-1-methylethyl]-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



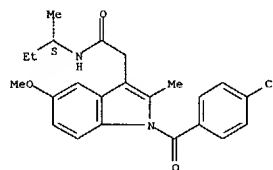
RN 475589-75-4 CAPLUS  
 CN 1H-Indole-3-acetamide, 1-(4-chlorobenzoyl)-N-[(1R)-2-methoxy-1-methylpropyl]-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

L14 ANSWER 257 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
 Absolute stereochemistry.



RN 475589-76-5 CAPLUS  
 CN 1H-Indole-3-acetamide, 1-(4-chlorobenzoyl)-N-[(1S)-2-methoxy-1-methylpropyl]-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

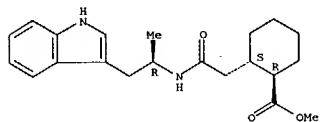


REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L14 ANSWER 258 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Some time ago, Siddiqui et al. proposed a structure for the naturally occurring indole alkaloid yohambinine, which had been isolated from Rauwolfia serpentina BENTH. In the present paper, enantioselective syntheses of all eight diastereoisomers endowed with the proposed 5-methyl-yohimbane structure are disclosed. However, none of the synthetically prepared compds. showed spectroscopic properties identical to those reported for the natural product yohambinine, which, therefore, must possess an altogether different constitutional formula. The ground-state conformations of the diastereoisomers were deduced by spectroscopic methods, and the outcome was compared with the results of extensive force-field, semi-empirical, and ab-initio calcns.

ACCESSION NUMBER: 2002:284207 CAPLUS  
 DOCUMENT NUMBER: 137:185691  
 TITLE: Synthesis and conformational analysis of all eight diastereoisomers of 5-methyl-yohimbane  
 AUTHOR(S): Lohse, Christian; Dettlerbeck, Richard; Acklin, Pierre;  
 BORCHBERG, Hans-Jürg  
 CORPORATE SOURCE: Laboratorium für Organische Chemie der Technischen Hochschule, HCI, ETH-Honggerberg, Zurich, CH-8093, Switz.  
 SOURCE: Helvetica Chimica Acta (2002), 85(3), 945-961  
 CODEN: HCHCAV; ISSN: 0018-019X  
 PUBLISHER: Verlag Helvetica Chimica Acta  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 137:185691  
 IT 451498-62-7P 451498-72-9P 451498-88-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and conformational anal. of 5-methyl-yohimbane diastereomers)  
 RN 451498-62-7 CAPLUS  
 CN Cyclohexanecarboxylic acid, 2-[2-[[[(1R)-2-(1H-indol-3-yl)-1-methylethyl]amino]-2-oxoethyl]-, methyl ester, (1R,2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 451498-72-9 CAPLUS  
 CN Cyclohexanecarboxylic acid, 2-[2-[[[(1R)-2-(1H-indol-3-yl)-1-methylethyl]amino]-2-oxoethyl]-, methyl ester, (1S,2R)- (9CI) (CA INDEX NAME)

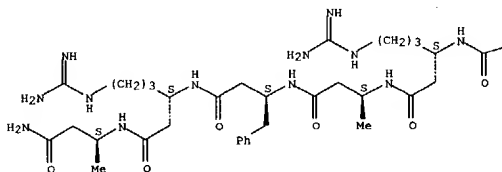
Absolute stereochemistry. Rotation (+).

L14 ANSWER 259 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB To determine the structural requirements for cellular uptake of  $\beta$ -peptides, a series of fluorescein-labeled  $\beta$ -peptides was prepared. 3T3 mouse fibroblast cells were cultured as exponentially growing monolayers in RPMI 1640 medium, without phenol red, supplemented with 10% fetal calf serum and 1 mM glutamine at 37 under 5% CO<sub>2</sub>. The ability of fluorescence-labeled peptides to enter the cells was analyzed by fluorescence microscopy. Results demonstrate the ability of polycationic  $\beta$ -peptides to internalize into cells. It was found that  $\beta$ -oligoarginine was significantly more effective in entering cells than  $\beta$ -oligolysine. Because of their resistance to enzyme degradation, it is possible to use  $\beta$ -oligoarginine derivs. for long-term binding to cell nuclei.

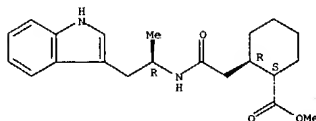
ACCESSION NUMBER: 2002:266166 CAPLUS  
 DOCUMENT NUMBER: 137:163274  
 TITLE: Cellular uptake studies with  $\beta$ -peptides  
 AUTHOR(S): Rueping, Magnus; Mahajan, Yogesh; Sauer, Markus; Seebach, Dieter  
 CORPORATE SOURCE: Laboratorium für Organische Chemie der Technischen Hochschule ETH-Honggerberg, Zurich, 8093, Switz.  
 SOURCE: ChemBioChem (2002), 3(2-3), 257-259  
 CODEN: CBCHFX; ISSN: 1439-4227  
 PUBLISHER: Wiley-VCH Verlag GmbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 447408-08-4 447408-09-5 447408-11-9  
 RL: PKT (Pharmacokinetics); BIOL (Biological study)  
 (cellular uptake studies with  $\beta$ -peptides)  
 RN 447408-08-4 CAPLUS  
 CN 2,6,10,14,18,22,26-Heptaazanonacosan-29-amide, 11,23-bis[3-[(aminoininomethyl)amino]propyl]-1-[2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)phenyl]-3,15,27-trimethyl-1,5,9,13,17,21,25-heptaazo-7,19-bis(phenylmethyl)-, (3S,7S,11S,15S,19S,23S,27S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

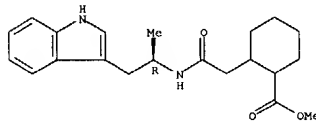


L14 ANSWER 258 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 451498-88-7 CAPLUS  
 CN Cyclohexanecarboxylic acid, 2-[2-[[[(1R)-2-(1H-indol-3-yl)-1-methylethyl]amino]-2-oxoethyl]-, methyl ester (9CI) (CA INDEX NAME)

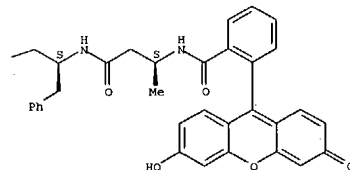
Absolute stereochemistry.



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L14 ANSWER 259 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

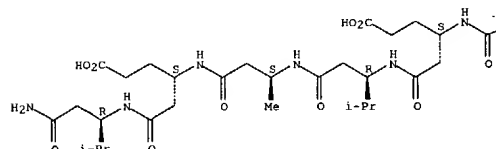
PAGE 1-B



RN 447408-09-5 CAPLUS  
 CN 2,6,10,14,18,22-Hexaazahexacosan-26-oic acid, 23-[2-[[[(1R)-3-amino-1-(1-methylethyl)-3-oxopropyl]amino]-2-oxoethyl]-11-(2-carboxyethyl)-3-[(1S)-1-hydroxyethyl]-1-[2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)phenyl]-7,19-dimethyl-15-(1-methylethyl)-1,5,9,13,17,21-hexaazo-, (3R,7S,11S,15R,19S,23S)- (9CI) (CA INDEX NAME)

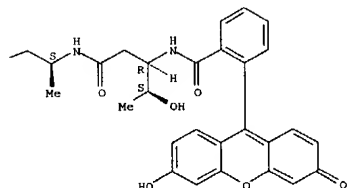
Absolute stereochemistry.

PAGE 1-A





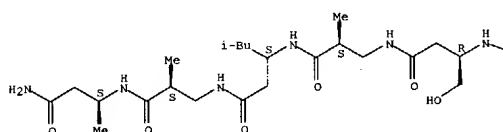
PAGE 1-B



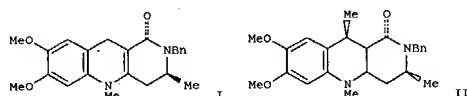
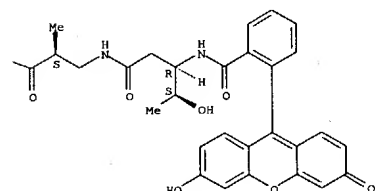
RN 447408-11-9 CAPLUS  
 CN 2,6,10,14,18,22,26-Heptaazanonacosan-29-amide,  
 3-[(1S)-1-hydroxyethyl]-11-  
 (hydroxymethyl)-1-[2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)phenyl]-8,16,24,27-  
 tetramethyl-19-(2-methylpropyl)-1,5,9,13,17,21,25-hepta-oxo-,  
 (3R,8S,11R,16S,19S,24S,27S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



AB The authors report the stereoselective synthesis of new chiral NADH  
 mimics  
 I and II of the benzo[b]-1,6-naphthryridine series. The synthesis of I  
 and II relies upon a Friedlander-type condensation between an amino imine  
 and piperidine-2,4-dione bearing a stereogenic center at C(6). The  
 resulting NADH models were involved in the reduction of Me  
 benzoylformate. A

comparison of their performance with that of previously reported NADH  
 mimics throws new light on the role played by the C(4)-C(3)-C:O dihedral  
 angle ( $\alpha$ ) on the stereoselectivity of the hydride transfer.

ACCESSION NUMBER: 2002:252132 CAPLUS

DOCUMENT NUMBER: 137:200922

TITLE: Influence of the C(4)-C(3)-C:O dihedral angle of  
chiral NADH mimics on the stereoselectivity of  
reductionsAUTHOR(S): Vasse, Jean-Luc; Levacher, Vincent; Bourguignon,  
Jean;CORPORATE SOURCE: Dupas, Georges  
Laboratoire de Chimie Organique, Fine et  
Heterocyclique associe au CNRS, IRCOF-INSA, Mont  
SaintSOURCE: Aignan, F-76131, Fr.  
Tetrahedron: Asymmetry (2002), 13(3), 227-232  
CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:200922

IT 453556-44-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (influence of the C(4)-C(3)-C:O dihedral angle of chiral NADH mimics

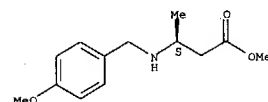
on  
 the stereoselectivity of redns.)

RN 453556-44-0 CAPLUS

CN Butanoic acid, 3-[[[4-methoxyphenyl)methyl]amino]-, methyl ester, (3S)-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR  
 THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT



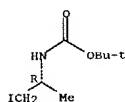
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR  
 THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L14 ANSWER 261 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN

AB A concise route to enantiomerically pure 2-substituted indolines and a 2-substituted tetrahydroquinoline has been developed by application of the Pd-catalyzed coupling of amino functionalized organozinc reagents with 2-bromiodobenzene, followed by Buchwald's palladium-catalyzed intramolecular amination reaction. The yields in the initial coupling are modest (36-52%), but the cyclization yields are satisfactory (63-87%). The stereochemical integrity of a representative example was established by chiral phase HPLC.

ACCESSION NUMBER: 2002:173497 CAPLUS  
DOCUMENT NUMBER: 137:169388  
TITLE: Synthesis of 2-substituted indolines using sequential Pd-catalyzed processes  
AUTHOR(S): Deboves, Herve J. C.; Hunter, Christopher; Jackson, Richard F. W.  
CORPORATE SOURCE: Department of Chemistry, The University of Newcastle, Newcastle upon Tyne, NE1 7RU, UK  
SOURCE: Journal of the Chemical Society, Perkin Transactions 1  
PUBLISHER: (2002), (6), 733-736  
DOCUMENT TYPE: CODEN: JCSPCE; ISSN: 1472-7781  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 137:169388  
IT 446060-78-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of 2-substituted indolines using sequential Pd-catalyzed processes)  
RN 446060-78-2 CAPLUS  
CN Carbanic acid, [(1R)-2-iodo-1-methylethyl]-, 1,1-dimethylethyl ester (9CI)  
(CA INDEX NAME)

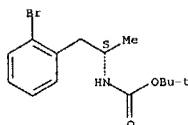
Absolute stereochemistry.



IT 446059-15-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of 2-substituted indolines using sequential Pd-catalyzed processes)  
RN 446059-15-0 CAPLUS  
CN Carbanic acid, [(1S)-2-(2-bromophenyl)-1-methylethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

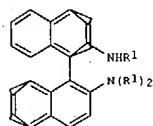
L14 ANSWER 261 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RECORD.

FORMAT

L14 ANSWER 262 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN  
GI



AB Triacylbinaphthylamines I (R1 = (halo-substituted) alkanoyl) are prepared by N-acylation of one optical isomer of II with I, isolation, and deacylation. I (R1 = H) was reacted with Ac2O in pyridine at 100° for 24 h to give 65% I (R1 = Ac). α-Methylbenzylamine was acylated with I (R1 = Ac) in DMSO at room temperature for 3 h to give 24% (S)-N-acetyl-α-methylbenzylamine with 30% e.e.

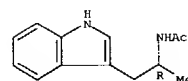
ACCESSION NUMBER: 1999:631118 CAPLUS  
DOCUMENT NUMBER: 131:243085  
TITLE: Preparation of optically active triacylbinaphthylamines and optical resolution of amines with them  
INVENTOR(S): Murakami, Yasuoki; Kondo, Kazuhiro  
PATENT ASSIGNEE(S): Shiratori Pharmaceutical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JXXXXF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.           | KIND | DATE                                   | APPLICATION NO. | DATE     |
|----------------------|------|--|-----------------|----------|
| JP 11269133          | A2   | 19991005                               | JP 1998-72103   | 19980320 |
| PRIORITY APPL. INFO. |      |  | JP 1998-72103   | 19980320 |
| OTHER SOURCE(S):     |      | CASREACT 131:243085; MARPAT 131:243085 |                 |          |

IT 660846-14-0P  
RL: IMP (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
(preparation of optically active triacylbinaphthylamines and optical resolution of amines by acylation with them)  
RN 660846-14-0 CAPLUS  
CN Acetamide, N-[(1R)-2-(1H-indol-3-yl)-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L14 ANSWER 262 OF 262 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



=> fil reg  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

| SINCE FILE ENTRY | TOTAL SESSION |
|------------------|---------------|
| 302.73           | 495.16        |

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)  
CA SUBSCRIBER PRICE

| SINCE FILE ENTRY | TOTAL SESSION |
|------------------|---------------|
| -43.66           | -47.82        |

FILE 'REGISTRY' ENTERED AT 16:54:41 ON 05 MAY 2004  
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STRUCTURE FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7  
DICTIONARY FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7

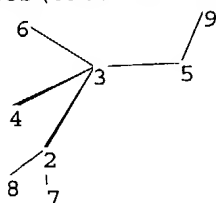
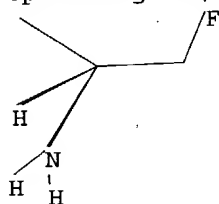
TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>  
Uploading C:\Program Files\Stnexp\Queries\09857465.str



chain nodes :  
2 3 4 5 6 7 8 9  
chain bonds :  
2-3 2-7 2-8 3-4 3-5 3-6 5-9  
exact/norm bonds :  
2-3  
exact bonds :  
2-7 2-8 3-4 3-5 3-6 5-9

G1:H,F

Match level :  
2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

Stereo Bonds:

3-2 (Single Wedge).  
4-3 (Single Hash).

Stereo Chiral Centers:

3 (Parity=Don't Care)

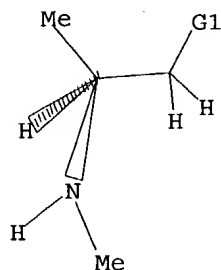
Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 3

L15 STRUCTURE UPLOADED

=> d query

L15 STR



G1 H,F

Structure attributes must be viewed using STN Express query preparation.

=> s l15

SAMPLE SEARCH INITIATED 16:54:58 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 115437 TO ITERATE

0.9% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*

PROJECTED ITERATIONS: EXCEEDS 1000000  
PROJECTED ANSWERS: EXCEEDS 0

L16 0 SEA SSS SAM L15

=> s l15 exact

STRUCTURES CONTAINING VARIABLE NODES NOT VALID IN EXACT OR FAMILY SEARCH  
You have requested a full structure (EXA or FAM) search on a structure containing one of the special variable-atom symbols A, M, Q, or X, or a variable group G. Only bond variability is allowed in structures for EXA or FAM searches. Variable nodes are never permitted.

=> s l15 full

FULL SEARCH INITIATED 16:55:15 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - >1,000,000 TO ITERATE

< 17.3% PROCESSED 400000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.13

47 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: EXCEEDS 1000000  
PROJECTED ANSWERS: EXCEEDS 222

L17 47 SEA SSS FUL L15

=> fil caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST  | 155.42           | 650.58        |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| CA SUBSCRIBER PRICE                        | 0.00             | -47.82        |

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FILE COVERS 1907 - 5 May 2004 VOL 140 ISS 19  
FILE LAST UPDATED: 4 May 2004 (20040504/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

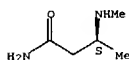
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L18 12 L17

=> d l18 1-12 abs ibib hitstr

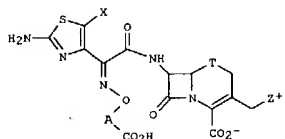
L18 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2004 ACS ON STN  
 AB Partially modified retro- (PMR) and retro-inverse (PMRI)  
 $\psi$ [NHCH(CF<sub>3</sub>)]gly peptides, a conceptually new class of peptidomimetics,  
 have been synthesized in wide structural diversity and variable length by  
 azo-Michael reaction of enantiomerically pure  $\alpha$ -amino esters and  
 peptides with enantiomerically and geometrically pure N-(4,4,4-  
 trifluorocrotonoyl)oxazolidin-2-ones. The factors underlying the  
 observed moderate to good diastereocontrol have been investigated. The  
 conformations of model PMR-[NHCH(CF<sub>3</sub>)]gly tripeptides have been  
 studied in solution by 1H NMR spectroscopy supported by MD calcs., as  
 well as in the solid-state by X-ray diffraction. Remarkable stability of  
 turn-like conformations, comparable to that of parent malonyl-based  
 retropeptides, was evidenced, as a likely consequence of two main  
 factors:  
 (1) severe torsional restrictions about sp<sup>3</sup> bonds in the  
 [CO-CH<sub>2</sub>-CH(CF<sub>3</sub>)-NH-CH(R)-CO] module, which is biased by the  
 stereoelectronically demanding CF<sub>3</sub> group and the R side chain and (2)  
 formation of nine-membered intramolecularly hydrogen-bonded rings, which  
 have been clearly detected both in CHCl<sub>3</sub> solution and in some crystal  
 structures. The former factor seems to be more important, as turn-like  
 conformations were found in the solid-state even in the absence of  
 intramol. hydrogen bonding. The relative configuration of the  
 -C<sup>\*</sup>H(CF<sub>3</sub>)NHC<sup>\*</sup>H(R)- stereogenic centers has a major effect on the  
 stability of the turn-like conformation, which seems to require a syn stereochem.  
 X-ray diffraction and ab initio computational studies showed that the  
 [-CH(CF<sub>3</sub>)NH-] group can be seen as a sort of hybrid between a peptide  
 bond mimic and a proteolytic transition state analog, as it combines some of  
 the properties of a peptidyl -CONH- group (low NH basicity, CH(CF<sub>3</sub>)-NH-CH  
 backbone angle close to 120°, C-CF<sub>3</sub> bond substantially isopolar  
 with the C=O) with some others of the tetrahedral intermediate  
 [-C(OX)(O-)-NH-] involved in the protease-mediated hydrolysis reaction of  
 a peptide bond (high electron d. on the CF<sub>3</sub> group, tetrahedral backbone  
 carbon).  
 ACCESSION NUMBER: 2003:788373 CAPLUS  
 DOCUMENT NUMBER: 140:5293  
 TITLE: Synthesis, structure and conformation of  
 partially-modified retro- and retro-inverse  
 $\psi$ [NHCH(CF<sub>3</sub>)]gly peptides  
 AUTHOR(S): Volontario, Alessandro; Bellosta, Stefano; Bravin,  
 Fabio; Bellucci, Maria Cristina; Bruche, Luca;  
 Colombo, Giorgio; Malpezzi, Luciana; Mazzini,  
 Stefania; Meille, Stefano V.; Melli, Massimiliano;  
 Ramirez de Arellano, Carmen; Zanda, Matteo  
 CORPORATE SOURCE: Dipartimento di Chimica, Materiali ed Ingegneria  
 Chimica "G. Natta" Politecnico di Milano, Milan,  
 20131, Italy  
 SOURCE: Chemistry--A European Journal (2003), 9(18),  
 4510-4522  
 CODEN: CEUJED; ISSN: 0947-6539  
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 627882-08-0  
 RL: PRI (Properties)  
 (calculated structure of model partially-modified retro  
 $\psi$ [NHCH(CF<sub>3</sub>)]gly

L18 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)  
 peptides)  
 RN 627882-08-0 CAPLUS  
 CN Butanamide, 3-(methylamino)-, (3S)- (9CI) (CA INDEX NAME)  
 Absolute stereochemistry.



REFERENCE COUNT: 112 THERE ARE 112 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L18 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2004 ACS ON STN  
 GI



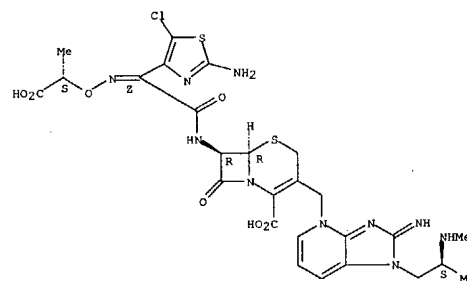
AB Cephen compds. I (T is S, SO, or O; X is halogeno, CN, carbamoyl which  
 may be substituted with lower alkyl, lower alkyl, lower alkoxy, or lower  
 alkylthio; A is substituted lower alkylene (wherein the substituent is  
 optionally substituted mono-lower alkyl, optionally substituted lower  
 alkylidene, or optionally substituted lower alkylene); and Z<sup>+</sup> is an  
 optionally substituted nitrogenous heterocyclic group having a cationic  
 group), their ester, protected 7-aminothiazole, or pharmaceutically  
 acceptable salts or solvates, are prepared I [X = Me, A = Me<sub>2</sub>C, T = S,  
 Z = 1-(3-methylaminopropyl)-1H-imidazo[4,5-b]pyridinium-4-yl-] was prepared  
 and showed antibacterial activities superior to that of ceftazidime.  
 ACCESSION NUMBER: 2003:757715 CAPLUS  
 DOCUMENT NUMBER: 139:261088  
 TITLE: Preparation of broad-spectrum cephen compounds  
 INVENTOR(S): Mishitani, Yasuhiko; Yamano, Yoshinori  
 PATENT ASSIGNEE(S): Shionogi & Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 2005 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2003078440   | A1   | 20030925 | WO 2003-JP3249  | 20030318 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,<br>CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GR,<br>GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,<br>LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NI, NO, NZ, OM, PH,<br>PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,<br>UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,<br>RU, TJ, TM |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZM, ZW, AT, BE, BG,<br>CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,<br>NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,<br>GW, ML, MR, NE, SN, TD, TG   |      |          |                 |          |

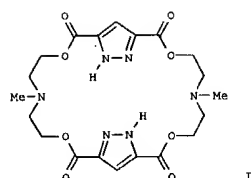
PRIORITY APPLN. INFO.: JP 2002-73526 A 20020318  
 OTHER SOURCE(S): MARPAT 139:261088  
 IT 604001-16-3P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological

L18 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)  
 study); PREP (Preparation); USES (Uses)  
 (prepn. of broad-spectrum cephen compds.)  
 RN 604001-16-3 CAPLUS  
 CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
 7-[[[(2Z)-(2-amino-5-chloro-4-thiazolyl)][(1S)-1-  
 carboxyethoxy]imino]acetyl]amino]-3-[[[1,2-dihydro-2-imino-1-[(2S)-2-  
 [methylamino]propyl]-4H-imidazo[4,5-b]pyridin-4-yl]methyl]-8-oxo-,  
 (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT



AB The equilibrium stability consts. (Ks) of a series of ammonium pyrazolate complexes [L2-2]2RN(R')H2+ (7, R' = H and 8, R' = Me, L2H2 = I) formed from a new macrocyclic disodium dipyrazolate salt of diazotetraester structure 6 [L2-2] 2Na+ and ammonium salts [RNH3+X- or RN(Me)H-2X-] of psychotropic drugs and neurotransmitter catecholamines has been evaluated by electrochem. methods in DMSO solution. The resulting Ks values demonstrate

that in general, the diazotetraester crown-derived dipyrazolate salt 6 exerts a stronger complexing effect over phenethylammonium ions than that of the dioxatetraester crown-derived disodium dipyrazolate salt previously reported. Interestingly, complexes formed by secondary ammonium salts of psychotropic amines [(+)-methamphetamine, (+)-methamphetamine and (+)-3,4-methylenedioxymethamphetamine (MDMA "ecstasy")] are much more stable than those formed by primary ammonium salts of dopamine and norepinephrine. A study of the stability consts. of ammonium pyrazolate complexes in terms of the contributions of substituent groups on the common phenethylamine unit is reported.

ACCESSION NUMBER: 2003:732432 CAPLUS  
DOCUMENT NUMBER: 140:198977  
TITLE: A new macrocyclic dipyrazolate salt of diazotetraester structure able to efficiently and selectively interact with psychotropic phenethylammonium salts: Influence of the amine substituents on the stability of the ammonium dipyrazolate complexes

AUTHOR(S): Reviriego, Felipe; Navarro, Pilar; Domenech, Antonio; Garcia-Espana, Enrique  
CORPORATE SOURCE: Instituto de Quimica Medica, CSIC, Madrid, 28006, Spain  
SOURCE: Journal of Supramolecular Chemistry (2003), Volume Date 2002, 2(1-3), 115-122  
CODEN: JSCOC9; ISSN: 1472-7862  
PUBLISHER: Elsevier Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 660810-62-2

RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)

AB Comps. including haptens, intermediates, and immunogens that are useful in the production of antibodies specific for the methylenedioxy class of amphetamine derivs. are described. Antibodies specific for the methylenedioxy class of amphetamine derivs., reagent kits containing antibodies specific for the methylenedioxy class of amphetamine derivs., methods of producing antibodies specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members of the methylenedioxy class of amphetamine derivs. are also described.

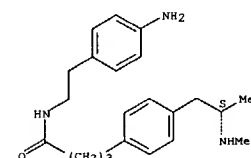
ACCESSION NUMBER: 2003:693232 CAPLUS  
DOCUMENT NUMBER: 139:207729  
TITLE: Amphetamine derivatives, antibodies to the derivatives, reagent kits, methods of producing the antibodies, and methods of detecting the derivatives  
INVENTOR(S): Hui, Raymond A.; Root, Richard T.; Vitone, Stephan S.  
PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany; F. Hoffmann-La Roche A.-G.  
SOURCE: Eur. Pat. Appl., 34 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| EP 1340980  | A1   | 20030903 | EP 2003-3297    | 20030225   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK |      |          |                 |            |
| US 2003170917   | A1   | 20030911 | US 2002-87612   | 20020301   |
| JP 2004123692   | A2   | 20040422 | JP 2003-49992   | 20030226   |
| PRIORITY APPL. INFO.:   |      |          | US 2002-87612   | A 20020301 |

OTHER SOURCE(S): MARPAT 139:207729  
IT 590346-44-4D, BSA conjugates 590346-45-5D, BSA conjugates  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(amphetamine derivs., anti-derivative antibodies, reagent kits, antibody production, and derivative detection methods)

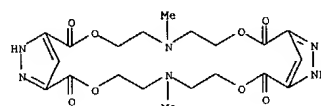
RN 590346-44-4 CAPLUS  
CN Benzenebutanamide, N-[2-(4-aminophenyl)ethyl]-4-[(2S)-2-(methylamino)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 590346-45-5 CAPLUS

RN 660818-62-2 CAPLUS  
CN 3,9,16,22-Tetraoxa-6,12,13,19,25,26-hexaazatricyclo[22.2.1.111,14]octacos-1(27),11,14(28),24-tetraene-2,10,15,23-tetrone, 6,19-dimethyl-, compd. with (aS)-N,α-dimethylbenzeneethanamine (1:2) (9CI) (CA INDEX NAME)  
CM 1  
CRN 219830-98-5  
CMF C20 H26 N6 O8



CM 2  
CRN 537-46-2  
CMF C10 H15 N

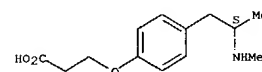
Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

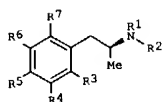
Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L18 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN  
GI



I

AB Hapten-carrier conjugates, (S)-I (R1, R3 = H, Cl-3-alkyl; R2 = H, Cl-3-alkyl, polymethylene chain, (CH2)nCO2H; n = 1-6; R4, R6, R7 = H, halogen, OR9, SR9; R9 = H, Cl-3-alkyl; R5 = H, polymethylene chain, (CH2)mR10; R10 = CO2H, SH, CONHR13SH, CONHCHR11SH; R13 = CH(CO2H)CH2, (CH2)n; m = 1-4, with the proviso that R1 = H, R2 = Me or R1 = Me, R2 = H and R5 = polymethylene chain, (CH2)nCO2H], capable of eliciting anti-hapten antibodies in vivo to amphetamines are disclosed. Methods of preparing the hapten-carrier conjugates and therapeutic compns. are also disclosed. A therapeutic composition containing the hapten-carrier conjugate is

useful in the treatment of addiction to amphetamines. Passive immunization using antibodies raised against conjugates of the current invention is also disclosed. The therapeutic composition is suitable for co-therapy with other conventional drugs for treatment of amphetamine abuse.

ACCESSION NUMBER: 2003:589502 CAPLUS

DOCUMENT NUMBER: 139:133711

TITLE: Preparation of new amphetamine derivatives, antibodies

against them and pharmaceutical compositions containing them

INVENTOR(S): Pouletty, Philippe; Kusmirek, Jacques; Koralewski, Frederic; Galons, Herve; Blanchard, Dominique;

Gadjou,

Caroline; Danger, Yannic

PATENT ASSIGNEE(S): Drug Abuse Sciences, Inc., USA

SOURCE: Eur. Pat. Appl., 38 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

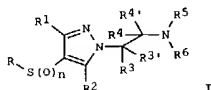
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

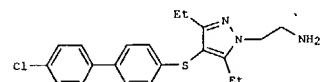
PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| EP 1331219   | A1   | 20030730 | EP 2002-290169  | 20020123 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  |      |          |                 |          |
| PRIORITY APPLN. INFO.: EP 2002-290169 20020123   |      |          |                 |          |
| OTHER SOURCE(S): CASREACT 139:133711; MARPAT 139:133711  |      |          |                 |          |
| IT 568594-32-1P  |      |          |                 |          |
| RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) |      |          |                 |          |

L18 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN  
GI



I



II

AB Title compds. I [n = 0-2; R = alk(en/yn)yl, aryl, etc.; R1-2 = H, OH, alkyl, alkoxy, etc.; R3, R3', R4, R4' = H, alkyl, aryl, cycloalkyl, etc.; R5-6 = H, alkyl, etc.] are prepared. For instance, 4-bromothiophenol was reacted with 4-chloro-3,5-heptandione (pyridine, 3 h) and the resulting alkylation product is treated with hydrazine to give 3,5-diethyl-4-[4-bromophenyl]sulfonyl-1H-pyrazole. This intermediate is coupled to 4-chlorophenylboronic acid (PhMe, PdCl2(PPh3)2, Na2CO3, 90°, 18 h) and the product alkylated with 2-chloroethylamine to give II. Example compds. were found to have an effect on 5-HT2c receptors  $\leq 10$   $\mu$ M. I are used for the treatment of obesity.

ACCESSION NUMBER: 2003:551498 CAPLUS

DOCUMENT NUMBER: 139:117420

TITLE: Preparation of 4-sulfonyl/sulfonyl/sulfonyl-1H-pyrazolyl compounds for use in diseases associated with the 5-HT2c receptor

INVENTOR(S): Ladouceur, Gaetan H.; Veithuisen, Emil; Choi, Soongyou; Zhang, Zhonghua; Wang, Yamin; Baryza, Jeremy

L.; Coish, Philip; Smith, Roger; Chen, Michael

PATENT ASSIGNEE(S): Bayer Corporation, USA

SOURCE: PCT Int. Appl., 202 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

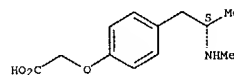
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 2003057674  | A1   | 20030717 | WO 2002-US41635 | 20021228 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GR, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, |      |          |                 |          |

L18 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
(prepn. of new amphetamine deriva., antibodies against them and pharmaceutical compns. contg. them)  
RN 568594-32-1 CAPLUS  
CN Acetic acid, [4-[(2S)-2-(methylamino)propyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-343749P P 20011228

OTHER SOURCE(S): MARPAT 139:117420

IT 561033-40-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(4-sulfonyl/sulfonyl/sulfonyl-1H-pyrazolyl compds. for use in diseases associated with the 5-HT2c receptor)

RN 561033-40-7 CAPLUS

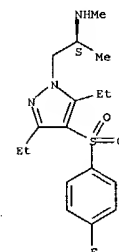
CN 1H-Pyrazole-1-ethanamine, 3,5-diethyl-4-[(4-fluorophenyl)sulfonyl]-N,N-dimethyl-, (aS)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 561033-39-4

CMF C17 H24 F N3 O2 S

Absolute stereochemistry.



CM 2

CRN 76-05-1

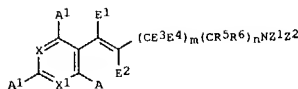
CMF C2 H F3 O2





REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT



AR Title compds. [I: X, X1 = N, NO, CH, CF, CCl, CBr, Cl, CR', CNR'R'', CCF3, COH, CCN, CNO2, CC2R', CSH, CSMe, CN3, CSO2Me, COR', CSR', CCOR'R'', CNR'COR', CCOR', CCO2R', C(CH2)qOR', CO2CR', CO2CNR'R'', CNR'CO2R', q = 1-6; A, AL, A2 = H, F, Cl, Br, Iodo, R', NR'R'', CF3, OH, CN, NO2, C2R', SH, SCH3, N3, SO2CH3, OR', SR', CONR'R'', NR'COR', COR', CO2R', (CH2)qOR', O2CR', O2CNR'R'' NR'CO2R'; m+n = 1-8; n ≥ 1; E1-E6 = H, alkyl, haloalkyl; ≥ 1 of E5, E6 = alkyl; Z1, Z2 = H, alkyl, COR', CO2R', CONR'R'', C(S)R', C(S)OR', C(S)NR'R'', C(NR')R', C(NR')OR', C(NR')NR'R'; R', R'' = H, alkyl, (substituted) pyridyl, quinolyl, pyrimidinyl, Ph, PhCH2], were prepared Thus, 3-bromopyridine, 4-penten-2-ol, palladium(II) acetate, tri-o-tolylphosphine, Et3N, and acetonitrile were heated in a sealed glass tube at 140° for 14 h. to give 81% (4E)-5-(3-pyridyl)-4-penten-2-ol. The latter was converted to the tosylate (60.1% yield) which was stirred with MeNH2 in EtOH for 18 h to give 51.6% (4E)-N-methyl-5-(3-pyridyl)-4-penten-2-amine. This in EtOH was treated with galactaric acid in 1 portion and then dropwise with H2O to give (4E)-N-methyl-5-(3-pyridyl)-4-penten-2-amine hemigalactarate.

The latter showed Emax = 113% for dopamine release.  
ACCESSION NUMBER: 2003:512086 CAPLUS  
DOCUMENT NUMBER: 139:69159  
TITLE: Preparation of pyridinylpentenylamine derivatives as nicotinic cholinergic agonists.  
INVENTOR(S): Caldwell, William S.; Dull, Gary M.; Bhatti, Balwinder  
SOURCE: S.; Hadimani, Srishailkumar B.; Park, Haeil; Wagner, Jared M.; Crooks, Peter A.; Lippicello, Patrick M.; Bencherif, Merouane  
PATENT ASSIGNEE(S): USA  
U.S. Pat. Appl. Publ., 28 pp., Cont.-in-part of U.S. Ser. No. 973,411  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

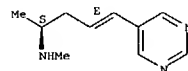
| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 2003125345 | A1   | 20030703 | US 2002-263083  | 20021002 |
| US 6489349    | B1   | 20021203 | US 2002-656284  | 20000906 |
| US 2002052497 | A1   | 20020502 | US 2001-973411  | 20011009 |
| US 2003087915 | A1   | 20030508 | US 2002-244693  | 20020916 |
| WO 2004031151 | A1   | 20040415 | WO 2003-US31188 | 20031001 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AG, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, ML, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:  
US 1996-631761 B2 19960423  
US 1998-98285 B1 19980616  
US 2000-522117 A1 20000309  
US 2000-641496 B1 20000818  
US 2001-973411 A2 20011009  
US 1999-295181 A1 19990420  
US 2000-570226 A1 20000512  
US 2002-263083 A 20021002

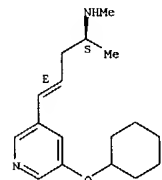
OTHER SOURCE(S): MARPAT 139:69159  
IT 547741-76-4P, (S)-(4E)-N-Methyl-5-(5-pyrimidinyl)-4-penten-2-amine  
552301-88-9P, (2S)-(4E)-N-Methyl-5-(5-cyclohexyloxy-3-pyridyl)-4-penten-2-amine  
552301-89-0P, (2R)-(4E)-N-Methyl-5-(5-cyclohexyloxy-3-pyridyl)-4-penten-2-amine  
552301-90-3P, (2S)-(4E)-N-Methyl-5-(5-phenoxy-3-pyridyl)-4-penten-2-amine  
552301-91-4P, (2R)-(4E)-N-Methyl-5-(5-phenoxy-3-pyridyl)-4-penten-2-amine  
552301-92-5P, (2S)-(4E)-N-Methyl-5-(5-(4-fluorophenoxy)-3-pyridyl)-4-penten-2-amine  
552301-93-6P, (2R)-(4E)-N-Methyl-5-(5-(4-fluorophenoxy)-3-pyridyl)-4-penten-2-amine  
552301-94-7P, (2S)-(4E)-N-Methyl-5-(5-(4-chlorophenoxy)-3-pyridyl)-4-penten-2-amine  
552301-95-8P, (2R)-(4E)-N-Methyl-5-(5-(4-chlorophenoxy)-3-pyridyl)-4-penten-2-amine  
552301-96-9P, (2S)-(4E)-N-Methyl-5-(5-(3-cyanophenoxy)-3-pyridyl)-4-penten-2-amine  
552301-97-0P, (2R)-(4E)-N-Methyl-5-(5-(3-cyanophenoxy)-3-pyridyl)-4-penten-2-amine  
552301-98-1P, (2S)-(4E)-N-Methyl-5-(5-(5-indolylloxy)-3-pyridyl)-4-penten-2-amine  
552301-99-2P, (2R)-(4E)-N-Methyl-5-(5-(5-indolylloxy)-3-pyridyl)-4-penten-2-amine  
552302-02-0P, (R)-(4E)-N-Methyl-5-(5-pyrimidinyl)-4-penten-2-amine  
552302-03-1P, (R)-(4E)-N-Methyl-5-(5-pyrimidinyl)-4-penten-2-amine  
552302-04-2P, 552302-05-3P, 552302-06-4P  
552302-12-2DP, (2R)-(4E)-N-Methyl-5-(5-bromo-3-pyridyl)-4-penten-2-amine, (thio)urea, (thio)carbamate, (thio)amide, amine oxide derivs.  
552302-13-3DP, (2R)-(4E)-N-Methyl-5-(5-ethoxy-3-pyridyl)-4-penten-2-amine, (thio)urea, (thio)carbamate, (thio)amide, amine oxide derivs.  
552302-18-8P, (2R)-(4E)-N-Methyl-5-(4-hydroxy-3-pyridyl)-4-penten-2-amine  
552302-19-9P, (2R)-(4E)-N-Methyl-5-(4-hydroxy-5-isopropoxy-3-pyridyl)-4-penten-2-amine  
552302-22-4P, (2S)-(4E)-N-Methyl-5-(4-hydroxy-3-pyridyl)-4-penten-2-amine  
552302-24-6P, (2S)-(4E)-N-Methyl-5-(4-hydroxy-5-isopropoxy-3-pyridyl)-4-penten-2-amine  
552302-36-0P, (2S)-(4E)-N-Methyl-5-(5-methoxy-3-pyridyl)-4-penten-2-amine  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyridinylpentenylamine derivs. as nicotinic cholinergic agonists)  
RN 547741-76-4 CAPLUS  
CN 4-Penten-2-amine, N-methyl-5-(5-pyrimidinyl)-, (2S,4E)- (9CI) (CA INDEX NAME)



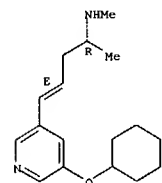
RN 552301-88-9 CAPLUS  
CN 4-Penten-2-amine, 5-[5-(cyclohexyloxy)-3-pyridinyl]-N-methyl-, (2S,4E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



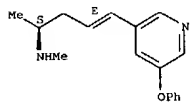
RN 552301-89-0 CAPLUS  
CN 4-Penten-2-amine, 5-[5-(cyclohexyloxy)-3-pyridinyl]-N-methyl-, (2R,4E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



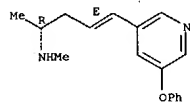
RN 552301-90-3 CAPLUS  
CN 4-Penten-2-amine, N-methyl-5-(5-phenoxy-3-pyridinyl)-, (2S,4E)- (9CI) (CA INDEX NAME)

L18 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
 Absolute stereochemistry.  
 Double bond geometry as shown.



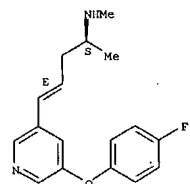
RN 552301-91-4 CAPLUS  
 CN 4-Penten-2-amine, N-methyl-5-(5-phenoxy-3-pyridinyl)-, (2R,4E)-(9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RN 552301-92-5 CAPLUS  
 CN 4-Penten-2-amine, 5-[5-(4-fluorophenoxy)-3-pyridinyl]-N-methyl-, (2S,4E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



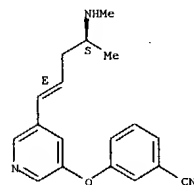
RN 552301-93-6 CAPLUS  
 CN 4-Penten-2-amine, 5-[5-(4-fluorophenoxy)-3-pyridinyl]-N-methyl-, (2R,4E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

L18 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

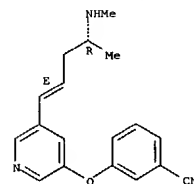
RN 552301-96-9 CAPLUS  
 CN Benzonitrile,  
 3-[[5-[(1E,4S)-4-(methylamino)-1-pentenyl]-3-pyridinyl]oxy]-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RN 552301-97-0 CAPLUS  
 CN Benzonitrile,  
 3-[[5-[(1E,4R)-4-(methylamino)-1-pentenyl]-3-pyridinyl]oxy]-  
 (9CI) (CA INDEX NAME)

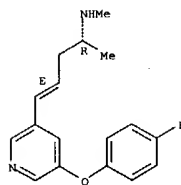
Absolute stereochemistry.  
 Double bond geometry as shown.



RN 552301-98-1 CAPLUS  
 CN 4-Penten-2-amine, 3-[5-(1H-indol-5-yloxy)-3-pyridinyl]-N-methyl-,  
 (2S,4E)-(9CI) (CA INDEX NAME)

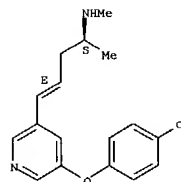
Absolute stereochemistry.  
 Double bond geometry as shown.

L18 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



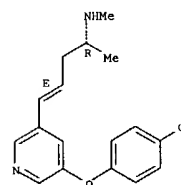
RN 552301-94-7 CAPLUS  
 CN 4-Penten-2-amine, 5-[5-(4-chlorophenoxy)-3-pyridinyl]-N-methyl-, (2S,4E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

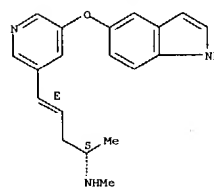


RN 552301-95-8 CAPLUS  
 CN 4-Penten-2-amine, 5-[5-(4-chlorophenoxy)-3-pyridinyl]-N-methyl-, (2R,4E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

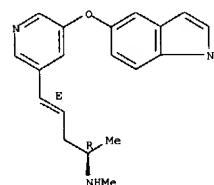


L18 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



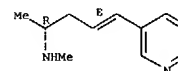
RN 552301-99-2 CAPLUS  
 CN 4-Penten-2-amine, 5-[5-(1H-indol-5-yloxy)-3-pyridinyl]-N-methyl-,  
 (2R,4E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RN 552302-02-0 CAPLUS  
 CN 4-Penten-2-amine, N-methyl-5-(5-pyrimidinyl)-, (2R,4E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

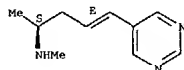


RN 552302-03-1 CAPLUS  
 CN Galactaric acid, compd. with  
 (2S,4E)-N-methyl-5-(5-pyrimidinyl)-4-penten-2-amine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 547741-76-4  
CMF C10 H15 N3

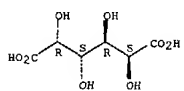
Absolute stereochemistry.  
Double bond geometry as shown.



CM 2

CRN 526-99-8  
CMF C6 H10 O8

Relative stereochemistry.

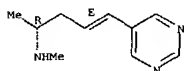


RN 552302-04-2 CAPLUS  
CN Galactaric acid, compd. with  
(2R,4E)-N-methyl-5-(5-pyrimidinyl)-4-penten-2-  
amine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 552302-02-0  
CMF C10 H15 N3

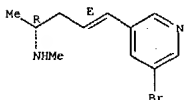
Absolute stereochemistry.  
Double bond geometry as shown.



CM 2

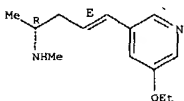
CRN 526-99-8  
CMF C6 H10 O8

Relative stereochemistry.



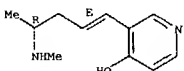
RN 552302-13-3 CAPLUS  
CN 4-Penten-2-amine, 5-(5-ethoxy-3-pyridinyl)-N-methyl-, (2R,4E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



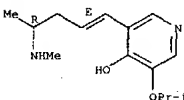
RN 552302-18-8 CAPLUS  
CN 4-Pyridinol, 3-[(1E,4R)-4-(methylamino)-1-pentenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

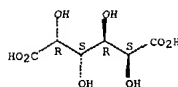


RN 552302-19-9 CAPLUS  
CN 4-Pyridinol, 3-[(1E,4R)-4-(methylamino)-1-pentenyl]-5-(1-methylethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

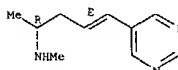


RN 552302-22-4 CAPLUS  
CN 4-Pyridinol, 3-[(1E,4S)-4-(methylamino)-1-pentenyl]- (9CI) (CA INDEX NAME)



RN 552302-05-3 CAPLUS  
CN 4-Penten-2-amine, N-methyl-5-(5-pyrimidinyl)-, monohydriodide, (2R,4E)- (9CI) (CA INDEX NAME)

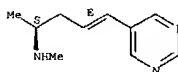
Absolute stereochemistry.  
Double bond geometry as shown.



● HI

RN 552302-06-4 CAPLUS  
CN 4-Penten-2-amine, N-methyl-5-(5-pyrimidinyl)-, monohydriodide, (2S,4E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

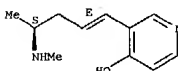


● HI

RN 552302-12-2 CAPLUS  
CN 4-Penten-2-amine, 5-(5-bromo-3-pyridinyl)-N-methyl-, (2R,4E)- (9CI) (CA INDEX NAME)

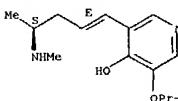
Absolute stereochemistry.  
Double bond geometry as shown.

Absolute stereochemistry.  
Double bond geometry as shown.



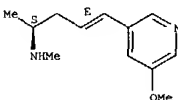
RN 552302-24-6 CAPLUS  
CN 4-Pyridinol, 3-[(1E,4S)-4-(methylamino)-1-pentenyl]-5-(1-methylethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



RN 552302-36-0 CAPLUS  
CN 4-Penten-2-amine, 5-(5-methoxy-3-pyridinyl)-N-methyl-, (2S,4E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



AB The invention provides methods of screening for substances having an effect on a nicotine receptor by contacting a cell having a nicotine receptor with a test substance; and determining any increase or decrease in

phosphorylation of Janus-Activated Kinase 2 (JAK2). An increase in phosphorylation of JAK2 indicates that the test substance stimulates the nicotine receptor, and wherein a decrease in phosphorylation of JAK2 indicates that the test substance inhibits the nicotine receptor. The invention also provides screening methods for identification of substances

that affect nicotine receptor activity through activity mediated by the A2 receptor. Related pharmaceutical compns. and methods of treatment of CNS disorders are also provided.

ACCESSION NUMBER: 2003:490993 CAPLUS

DOCUMENT NUMBER: 139:47183

TITLE: Screening methods for compounds that affect nicotine receptors and compositions for treatment of central nervous system disorders

INVENTOR(S): Bencherif, Metouane; Marrero, Mario B.

PATENT ASSIGNEE(S): Targacept, Inc., USA; Medical College of Georgia

RESEARCH INSTITUTE, INC.

SOURCE: PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2003051302   | A2   | 20030626 | WO 2002-US39952 | 20021213 |
| WO 2003051302   | A3   | 20030904 |                 |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GW, GU, HW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| US 2003158211   | A1   | 20030821 | US 2002-318842  | 20021213 |
| PRIORITY APPLN. INFO.: US 2001-340582P P 20011214   |      |          |                 |          |
| US 2002-369934P P 20020404  |      |          |                 |          |

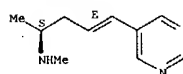
IT 547741-76-4

RL: PAC (Pharmacological activity): THU (Therapeutic use): BIOL (Biological study): USES (Uses) (as nicotine receptor stimulant; screening methods for compds. that affect nicotine receptors and compns. for treatment of central nervous system disorders)

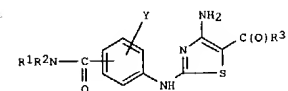
RN 547741-76-4 CAPLUS

CN 4-penten-2-amine, N-methyl-5-(5-pyrimidinyl)-, (2S,4E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



GI



AB Aminothiazole compds. with mono-/di-substituted benzamides (shown as I: variables described below: e.g. 4-((4-amino-5-(2,6-difluorobenzoyl)thiazol-2-yl)amino)-N-(2-morpholin-4-ylethyl)benzamide), and their pharmaceutically acceptable salts, pharmaceutically acceptable prodrugs, pharmaceutically active metabolites, and pharmaceutically acceptable

salts of said metabolites are described. These agents modulate and/or inhibit the cell proliferation and activity of protein kinases and are useful as pharmaceuticals for treating malignancies and other disorders.

Inhibitory activities towards three cyclin complexes of protein kinases, phosphorylated FGF receptor and/or LCK tyrosine kinase and/or cytotoxicity

towards the HCT-116 cancer cell line are reported for hundreds of I, many of which were prepared combinatorially. For I: R1 and R2 are each independently H, or an alkyl, alkenyl, alkynyl, heteroalkyl, alkoxy, aminoalkyl, aryl, heteroaryl, cycloalkyl, or heterocycloalkyl group unsubstituted or substituted with 21 substituents listed in the claims, or R1 or R2, together with the N-C(O) and two adjacent C atoms of the Ph ring of I, forms a 3- or 6-membered ring structure fused to the Ph ring of I and unsubstituted or substituted with 21 substituents listed in the claims, or R1 and R2, taken together with the N atom to which they are bonded, form a monocyclic or fused or nonfused polycyclic structure which may contain 1-3 addnl. heteroatoms, the structure being unsubstituted or substituted with 21 substituents listed in the claims. R3 is an aryl, heteroaryl, alkyl, or cycloalkyl group, unsubstituted or substituted with 21 substituents listed in the claims. Y is H, alkyl, heteroalkyl, haloalkyl, halocycloalkyl, haloheterocycloalkyl, cycloalkyl, heterocycloalkyl, -NO2, -NH2, -N-OH, -N-OR, -CH, -(CH2)-CH (z is 0-4), halogen, -OH, -O-Ra-O-, -ORb, -CO-R, -O-CO-Rc, -CO-ORc, -O-CO-OR, -O-OR, =O, =S, -NRdRe, -CO-NRdRe, -O-CO-NRdRe, -NRC-CO-Re, -NR-CO-OR, -CO-NRC-CO-Rd, -O-SO2-Re, -O-SO-R, -O-S-Re, -S-CO-Rc, -SO-CO-ORc, -SO-CO-OR, -O-SO3, -NRC-SRd, -NRC-SO-Rd, -NRC-SO2-Rd, -CO-SRc, -CO-SO-Re, -CO-OSO2-Rc, -CS-Rc, -CSO-R, -CSO2-R, -NRC-CS-Rd, -O-CS-Re, -O-CSO-Rc, -O-SO2-Re, -OS2-NRdRe, -SO-NRdRe, -S-NRdRe, -NRd-CSO2-Rd, -NRC-CSO-Rd, -NRC-CS-Rd, -SH, -S-Rd, and -PO2-ORc (Ra, etc. defined in claims). Although the methods of preparation are not

claimed, approx. 80 example preps. of I are included and directions are given for combinatorial preparation of 396 I.

ACCESSION NUMBER: 2003:42245 CAPLUS

DOCUMENT NUMBER: 138:106689

TITLE: Preparation of thiazolylamino benzamide derivatives as modulators of cell proliferation and inhibitors of

protein kinases  
INVENTOR(S): Chu, Shao Song; Alegria, Larry Andrew; Bleckman, Ted  
Michael; Chong, Wesley K. M.; Duvalie, Rohit K.; Li, Lin; Reich, Siegfried H.; Romines, William H.; Wallace, Michael B.; Yang, Yi

PATENT ASSIGNEE(S): Agouron Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 163 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

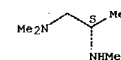
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND   | DATE     | APPLICATION NO. | DATE     |
|---|--------|----------|-----------------|----------|
| WO 2003004467   | A2     | 20030116 | WO 2002-US21280 | 20020705 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |        |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GU, GW, ML, MR, NE, SN, TD, TG  |        |          |                 |          |
| US 2003225147   | A1     | 20031204 | US 2002-190219  | 20020705 |
| US 6720346  | B2     | 20040413 |                 |          |
| PRIORITY APPLN. INFO.: US 2001-303679P P 20010706   |        |          |                 |          |
| US 2001-305274P P 20010713  |        |          |                 |          |
| OTHER SOURCE(S): MARPAT 138:106689  |        |          |                 |          |
| IT 486414-25-9P, (S)-N1,N1,N2-Trimethylpropane-1,2-diamine  |        |          |                 |          |
| 486414-27-1P, (R)-N1,N1,N2-Trimethylpropane-1,2-diamine   |        |          |                 |          |
| RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)   |        |          |                 |          |
| (preparation of thiazolylamino benzamide derivs. as modulators of cell proliferation and inhibitors of protein kinases)   |        |          |                 |          |
| RN 486414-25-9  | CAPLUS |          |                 |          |
| CN 1,2-Propanediamine, N1,N1,N2-trimethyl-, (2S)- (9CI) (CA INDEX NAME)   |        |          |                 |          |

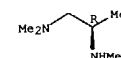
Absolute stereochemistry.



RN 486414-27-1 CAPLUS

CN 1,2-Propanediamine, N1,N1,N2-trimethyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L18 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

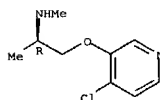
AB Analogs of the potent nicotinic receptor agonist 3-(2-aminoethoxy)pyridine substituted at the 5' and 6'-positions of the pyridine ring were synthesized and tested in vitro for nicotinic receptor binding activity (displacement of [3H](-)-cytisine from whole rat brain synaptic membranes).

The substituted analogs exhibited  $K_i$  values ranging from 0.076 to 319 nM compared to a  $K_i$  value of 26 nM for previously identified A-84543. Among the compds. tested, 5'-vinyl-6'-chloro substituted A-84543 was the most potent.

ACCESSION NUMBER: 2002:808837 CAPLUS  
DOCUMENT NUMBER: 138:187613  
TITLE: Synthesis and biological evaluation of pyridine-modified analogues of 3-(2-aminoethoxy)pyridine as novel nicotinic receptor ligands  
AUTHOR(S): Lin, Nan-Hong; Dong, Liming; Bunnelle, William H.; Anderson, David J.; Meyer, Michael D.  
CORPORATE SOURCE: Pharmaceutical Products Division, Neurological and Urological Diseases Research, Abbott Laboratories, Abbott Park, IL, 60064-3500, USA  
SOURCE: Inorganic & Medicinal Chemistry Letters (2002), 12(22), 3321-3324  
CODEN: BMCLES; ISSN: 0960-894X  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:187613

IT 497949-17-4P 497949-18-5P 497949-19-6P  
497949-20-9P 497949-21-0P 497949-22-1P  
497949-23-2P 497949-24-3P 497949-25-4P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(prepn of pyridine analogs of 3-(2-aminoethoxy)pyridine from  $\alpha$ -amino carboxylic acids and evaluation of their activity as nicotinic receptor ligands)  
RN 497949-17-4 CAPLUS  
CN 2-Propanamine, 1-[(4-chloro-3-pyridinyl)oxy]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

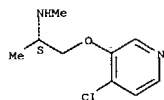
Absolute stereochemistry.



RN 497949-18-5 CAPLUS  
CN 2-Propanamine, 1-[(4-chloro-3-pyridinyl)oxy]-N-methyl-, (2S)- (9CI) (CA INDEX NAME)

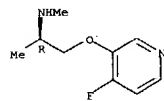
Absolute stereochemistry.

L18 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



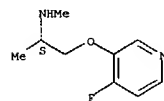
RN 497949-19-5 CAPLUS  
CN 2-Propanamine, 1-[(4-fluoro-3-pyridinyl)oxy]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



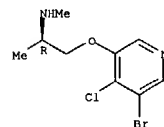
RN 497949-20-9 CAPLUS  
CN 2-Propanamine, 1-[(4-fluoro-3-pyridinyl)oxy]-N-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



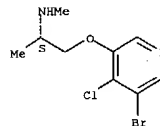
RN 497949-21-0 CAPLUS  
CN 2-Propanamine, 1-[(5-bromo-4-chloro-3-pyridinyl)oxy]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



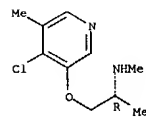
RN 497949-22-1 CAPLUS  
CN 2-Propanamine, 1-[(5-bromo-4-chloro-3-pyridinyl)oxy]-N-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



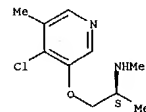
RN 497949-23-2 CAPLUS  
CN 2-Propanamine, 1-[(4-chloro-5-methyl-3-pyridinyl)oxy]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



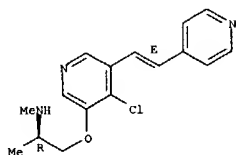
RN 497949-24-3 CAPLUS  
CN 2-Propanamine, 1-[(4-chloro-5-methyl-3-pyridinyl)oxy]-N-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



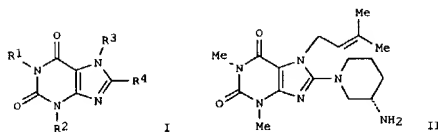
RN 497949-25-4 CAPLUS  
CN 2-Propanamine, 1-[(4-chloro-5-[(1E)-2-(4-pyridinyl)ethenyl]-3-pyridinyl)oxy]-N-methyl-, (2R)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RECORD.

FORMAT



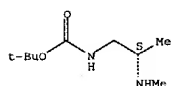
AB Xanthine derivs. of formula I [R1, R2 = H, alkyl, alkenyl, etc.; R3 = alkyl, arylalkyl, etc.; R4 = heterocyclyl, cycloalkyl, aminoalkyl, etc.] are prepared which exhibit an inhibitory effect on the activity of the dipeptidylpeptidase-IV enzyme. Pharmaceutical compns. containing I are described. Thus, II was prepared and had an IC50 of 22 nM against dipeptidylpeptidase-IV.

ACCESSION NUMBER: 2002:676018 CAPLUS  
DOCUMENT NUMBER: 137:216824  
TITLE: Preparation of xanthine derivatives as dipeptidylpeptidase-IV inhibitors  
INVENTOR(S): Himmelsbach, Frank; Mark, Michael; Eckhardt, Matthias;  
PATENT ASSIGNEE(S): Langkopf, Elke; Maier, Roland; Lotz, Ralf  
SOURCE: Boehringer Ingelheim Pharma K.-G., Germany  
PCT Int. Appl., 373 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.    | KIND   | DATE     | APPLICATION NO.  | DATE     |
|---------------|--|----------|------------------|----------|
| WO 2002068420 | A1   | 20020906 | WO 2002-EP1820   | 20020221 |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                  |          |
| RW:           | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TG, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                  |          |
| DE 10109021   | A1   | 20020905 | DE 2001-10109021 | 20010224 |
| DE 10117803   | A1   | 20021024 | DE 2001-10117803 | 20010410 |
| DE 10140345   | A1   | 20030227 | DE 2001-10140345 | 20010817 |
| DE 10203486   | A1   | 20030731 | DE 2002-10203486 | 20020130 |
| EP 1368349    | A1   | 20031210 | EP 2002-701288   | 20020221 |
| R:            | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |          |                  |          |
| EE 200300409  | A  | 20031215 | EE 2003-409      | 20020221 |
| BR 2002007767 | A  | 20040330 | BR 2002-7767     | 20020221 |

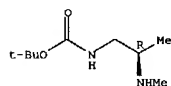
NO 2003003726 A 20030821 NO 2003-3726 20030821  
US 2004077645 A1 20040422 US 2003-467961 20031205  
PRIORITY APPLN. INFO.: DE 2001-10109021 A 20010224  
DE 2001-10117803 A 20010410  
DE 2001-10140345 A 20010817  
DE 2002-10203486 A 20020130  
WO 2002-EP1820 W 20020221  
OTHER SOURCE(S): MARPAT 137:216824  
IT 454709-95-6P 454709-96-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(Preparation of xanthine derivs. as dipeptidylpeptidase-IV inhibitors)  
RN 454709-95-6 CAPLUS  
CN Carbamic acid, [(2S)-2-(methylamino)propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 454709-96-7 CAPLUS  
CN Carbamic acid, [(2R)-2-(methylamino)propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RECORD.

FORMAT

AB The equilibrium stability consts. (Ks) of ammonium pyrazolate complexes [L2-]2RN(R')H2+ (3, R' = H and 4, R' = Me) formed from a macrocyclic disodium dipyrazolate salt 2[L2-] 2Na+ and ammonium salts (RNH3+X- or RN(Me)H2+X-) of psychotropic drugs and neurotransmitter catecholamines have been evaluated by electrochem. methods in DMSO solution. The resulting Ks values demonstrate that, except for (i)-amphetamine, the complexes formed by lipophilic primary [mescaline, (+)-amphetamine, (i)-p-methoxyamphetamine (PMA), (i)-3,4-methylenedioxymphetamine (MDA)] and secondary [(i)-methamphetamine, (+)-methamphetamine and (i)-3,4-methylenedioxymphetamine (MDMA ecstasy)] phenethylamines are more stable than those formed from hydrophilic ones (dopamine and norepinephrine). A 1H and 13C NMR study on the formation of complexes of structure 3 and 4 formed from primary [mescaline, (+)-amphetamine] and secondary [(+)-methamphetamine] ammonium salts is given.

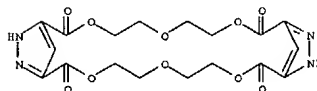
ACCESSION NUMBER: 2002:647697 CAPLUS  
DOCUMENT NUMBER: 138:406723  
TITLE: Effective complexation of psychotropic phenethylammonium salts from a disodium dipyrazolate salt of macrocyclic structure  
AUTHOR(S): Reviriego, Felipe; Navarro, Pilar; Domenech, Antonio; Garcia-España, Enrique  
CORPORATE SOURCE: Instituto de Quimica Medica, CSIC, Madrid, 28006, Spain  
SOURCE: Journal of the Chemical Society, Perkin Transactions 2 (2002), (9), 1634-1638  
CODEN: JCSPGI; ISSN: 1472-779X  
PUBLISHER: Royal Society of Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English

IT 531513-34-5  
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)  
(complexation of psychotropic phenethylammonium salts from a disodium dipyrazolate salt of macrocyclic structure)  
RN 531513-34-5 CAPLUS

CN 3,6,9,16,19,22-Hexaoxa-12,13,25,26-tetraazatricyclo[22.2.1.111,14]octacos-1(27),11,14(28),24-tetraene-2,10,15,23-tetrone, compd. with (aS)-N,N-dimethylbenzenethanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

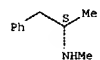
CRN 134778-22-6  
CMF C18 H20 N4 O10



L18 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2004 ACS on STM (Continued)  
CM 2

CRN 537-46-2  
CMP C10 H15 N

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR  
THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

|  |            |         |
|--|------------|---------|
| => fil reg                                 |            |         |
| COST IN U.S. DOLLARS                       | SINCE FILE | TOTAL   |
|  | ENTRY      | SESSION |
| FULL ESTIMATED COST                        | 59.27      | 709.85  |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL   |
|  | ENTRY      | SESSION |
| CA SUBSCRIBER PRICE                        | -8.32      | -56.14  |

FILE 'REGISTRY' ENTERED AT 16:58:31 ON 05 MAY 2004  
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STRUCTURE FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7  
 DICTIONARY FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
 information enter HELP PROP at an arrow prompt in the file or refer  
 to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s 389140-14-1/rn  
 L19 1 389140-14-1/RN

=> d 119

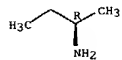


L19 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STM  
RN 389140-14-1 REGISTRY  
CN Benzenemethanol,  $\alpha$ -ethyl-, (aR)-, compd. with  
(2R)-2-butanamine (1:1) (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C9 H12 O . C4 H11 N  
SR CA  
LC STN Files: CA, CAPLUS

CM 1

CRN 13250-12-9  
CMF C4 H11 N

Absolute stereochemistry. Rotation (-).



CM 2

CRN 1565-74-8  
CMF C9 H12 O

Absolute stereochemistry. Rotation (+).



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> fil caplus  
COST IN U.S. DOLLARS

| SINCE FILE | TOTAL   |
|------------|---------|
| ENTRY      | SESSION |
| 5.13       | 714.98  |

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

| SINCE FILE | TOTAL   |
|------------|---------|
| ENTRY      | SESSION |
| 0.00       | -56.14  |

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FILE 'CAPLUS' ENTERED AT 17:03:15 ON 05 MAY 2004  
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FILE COVERS 1907 - 5 May 2004 VOL 140 ISS 19  
FILE LAST UPDATED: 4 May 2004 (20040504/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 389140-14-1/rn  
1 389140-14-1  
0 389140-14-1D  
L20 1 389140-14-1/RN  
(389140-14-1 (NOTL) 389140-14-1D )

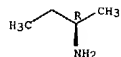
=> d l20 abs ibib hitstr

L20 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB A methodol. has been developed for enantiodiscriminating chiral monoalcs. and monoamines by mass spectrometry. The approach is based on the generation of supersonically expanded complexes of these mols. with suitable chromophores, i.e. R-(+)-1-phenyl-ethanol (ER) or R-(+)-1-phenyl-1-propanol (PR). The jet-cooled diastereomeric complexes, otherwise elusive at room temperature, have been ionized by one-color resonant two-photon absorption (R2PI) and their fragmentation pattern analyzed by time-of-flight (TOF) spectrometry. Enantiodifferentiation of the chiral monoalcs. and monoamines is based on: (1) the different spectral shifts of the band origin of their mol. complexes relative to that of the bare chromophore (A) and (2) the different mass spectral fragmentation patterns of the jet-cooled diastereomeric adducts. Detection of stable aggregates of methane, n-butane, and other simple mols. with the selected chromophores suggests that the R2PI/TOF method can be a potential tool for enantiodifferentiating chiral hydrocarbons in the gas phase.

ACCESSION NUMBER: 2001:746816 CAPLUS  
 DOCUMENT NUMBER: 136:134373  
 TITLE: Chiral discrimination of monofunctional alcohols and amines in the gas phase  
 AUTHOR(S): Filippi, A.; Giardini, A.; Latini, A.; Piccirillo, S.;  
 CORPORATE SOURCE: Scuderi, D.; Speranza, M.  
 Dipartimento di Studi di Chimica e Tecnologia delle  
 Sostanze Biologicamente Attive, Universita di Roma  
 "La Sapienza", Rome, 00185, Italy  
 SOURCE: International Journal of Mass Spectrometry (2001),  
 210/211(1-3), 483-488  
 CODEN: IMSPF8; ISSN: 1387-3806  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 389140-14-1  
 RI: FMU (Formation, unclassified); RCT (Reactant); FORM (Formation, nonpreparative); RACT (Reactant or reagent)  
 (R2PI/TOF method for enantiodifferentiating chiral hydrocarbons in gas phase)  
 RN 389140-14-1 CAPLUS  
 CN Benzenemethanol, α-ethyl-, (αR)-, compd. with  
 (2R)-2-butanamine (1:1) (9CI) (CA INDEX NAME)

CM 1  
 CRN 13250-12-9  
 CMF C4 H11 N

Absolute stereochemistry. Rotation (-).



CM 2

L20 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

CRN 1565-74-8  
 CMF C9 H12 O

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

=> fil reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

14.08

729.06

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-0.69

-56.83

FILE 'REGISTRY' ENTERED AT 17:11:01 ON 05 MAY 2004

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STRUCTURE FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7

DICTIONARY FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

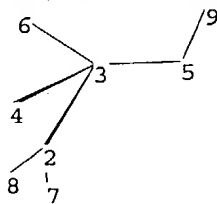
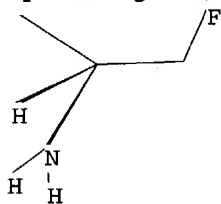
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\Program Files\Stnexp\Queries\09857465.str



chain nodes :

2 3 4 5 6 7 8 9

chain bonds :

2-3 2-7 2-8 3-4 3-5 3-6 5-9

exact/norm bonds :

2-3

exact bonds :

2-7 2-8 3-4 3-5 3-6 5-9

G1:H,F

Match level :

2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

Stereo Bonds:

3-2 (Single Wedge).  
4-3 (Single Hash).

Stereo Chiral Centers:

3 (Parity=Don't Care)

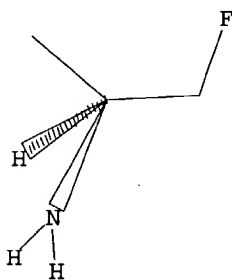
Stereo RSS Sets:

Type=Relative (Default). 1 Nodes= 3

L21 STRUCTURE UPLOADED

=> d query

L21 STR



G1 H,F

Structure attributes must be viewed using STN Express query preparation.

=> s l21

SAMPLE SEARCH INITIATED 17:11:17 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 1391 TO ITERATE

71.9% PROCESSED 1000 ITERATIONS 10 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 25583 TO 30057  
PROJECTED ANSWERS: 55 TO 501

L22 10 SEA SSS SAM L21

=> s l21 full

FULL SEARCH INITIATED 17:11:23 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 27574 TO ITERATE

100.0% PROCESSED 27574 ITERATIONS 465 ANSWERS  
SEARCH TIME: 00.00.01

L23 465 SEA SSS FUL L21

=> fil caplus

|  |            |         |
|--|------------|---------|
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| FULL ESTIMATED COST                        | ENTRY      | SESSION |
|  | 155.42     | 884.48  |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL   |
| CA SUBSCRIBER PRICE                        | ENTRY      | SESSION |
|  | 0.00       | -56.83  |

FILE 'CAPLUS' ENTERED AT 17:11:26 ON 05 MAY 2004  
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FILE COVERS 1907 - 5 May 2004 VOL 140 ISS 19  
 FILE LAST UPDATED: 4 May 2004 (20040504/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 123  
 L24

334 L23

=> d 124 300-334 abs ibib hitstr

L24 ANSWER 300 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN

AB The title compds. were resolved by treating with (R)-2CH<sub>2</sub> (I) and resolving the resulting N-(1-methyl-2-acetylvinyl) derivs. with quinine. Thus, 3-fluoro-DL-alanine (DL-II) was treated with I and quinine in MeOH for 60 min to give a crystallization quinine salt of L-ACCH:CMENHCH(CH<sub>2</sub>F)CO<sub>2</sub>H.

The latter was neutralized with 1N NaOH and the N-vinyl group was cleaved with HOAc/HCl to give 52.4% L-II. D-II (45%) was obtained from the filtrates and washings of the workup.

ACCESSION NUMBER: 1977:584966 CAPLUS

DOCUMENT NUMBER: 87:184966

TITLE: Resolving alanine, 3-fluoro- and 2-deutero-3-fluoro-DL-

INVENTOR(S): Chemerda, John M.; Gal, George

PATENT ASSIGNEE(S): Merck and Co., Inc., USA

SOURCE: U.S., 3 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| US 4048224             | A    | 19770913 | US 1976-664328  | 19760305 |
| FI 7700493             | A    | 19770906 | FI 1977-493     | 19770215 |
| SE 7701710             | A    | 19770906 | SE 1977-1710    | 19770216 |
| DK 7700674             | A    | 19770906 | DK 1977-674     | 19770216 |
| NL 7701643             | A    | 19770907 | NL 1977-1643    | 19770216 |
| NO 7700524             | A    | 19770906 | NO 1977-524     | 19770217 |
| CS 195327              | P    | 19800131 | CS 1977-1133    | 19770221 |
| SU 786887              | D    | 19801207 | SU 1977-2454448 | 19770222 |
| AT 348501              | B    | 19790226 | AT 1977-1382    | 19770302 |
| JP 52106814            | A2   | 19770907 | JP 1977-22281   | 19770303 |
| PL 105083              | P    | 19791113 | PL 1977-196814  | 19770303 |
| HU 172989              | P    | 19790128 | HU 1977-ME2047  | 19770304 |
| PRIORITY APPLN. INFO.: |      |          | US 1976-664328  | 19760305 |

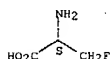
IT 35455-20-0P 35455-21-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, by resolution of 3-fluoro-DL-alanine)

RN 35455-20-0 CAPLUS

CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 35455-21-1 CAPLUS

CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L24 ANSWER 301 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN

AB Fluorination of di-Tert-Bu oxaloacetate [64336-61-4] followed by oxidation, reduction, and hydrolysis gave di-β,β-difluoroaspartic acid (dl-I) [64336-65-8] which was resolved via its brucine salts. dl-I was selectively esterified and treated with NH<sub>3</sub>-MeOH to give β,β-difluoroasparagine [64336-67-0]. Conversion of aspartate into oxaloacetate, catalyzed by aspartate aminotransferase (EC 2.6.1.1) [9000-97-9], was competitively inhibited by dl-I. Cell growth of 3T3-F cells in culture was slightly inhibited by l-I NH<sub>4</sub> salt [64336-69-2], but not by d-I NH<sub>4</sub> salt [64336-70-5]. In vivo L-5178Y lymphatic leukemia was unaffected by dl-I or difluoroasparagine in nontoxic doses.

ACCESSION NUMBER: 1977:577664 CAPLUS

DOCUMENT NUMBER: 87:177664

TITLE: Potential carcinostatics. Synthesis and biological properties of d- and l-β,β-difluoroaspartic acid and β,β-difluoroasparagine

AUTHOR(S): Hageman, Johanna J. M.; Wanner, Martinus J.; Koomen, Gerit Jan; Pandit, Upendra K.

CORPORATE SOURCE: Org. Chem. Lab., Univ. Amsterdam, Amsterdam, Neth.

SOURCE: Journal of Medicinal Chemistry (1977), 20(12), 1677-9

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 64336-69-2P

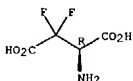
RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation and neoplasm inhibiting activity of)

RN 64336-69-2 CAPLUS

CN L-Aspartic acid, 3,3-difluoro-, monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● NH<sub>3</sub>

IT 64336-70-5P

RL: BAC (Biological activity or effector, except adverse); BSU

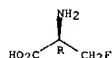
(Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of, as neoplasm inhibitor)

RN 64336-70-5 CAPLUS

CN D-Aspartic acid, 3,3-difluoro-, monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L24 ANSWER 300 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



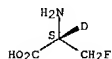
IT 35523-45-6P 59189-05-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, from resolution of racemic compound)

RN 35523-45-6 CAPLUS

CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

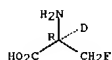
Absolute stereochemistry.



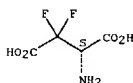
RN 59189-05-8 CAPLUS

CN L-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L24 ANSWER 301 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



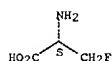
● NH<sub>3</sub>

L24 ANSWER 302 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Alcs. were dehydroxylated-fluorinated with SF4-HF. Thus PhCHFCMeNHMe  
 was obtained quant. by treating 10 mmols ephedrine in 20 mL HF with 21 mmols  
 SF4 in a CO2-acetone bath. Other alcs. dehydroxylated-fluorinated  
 included serine, kinin, pyridoxamine, and thiamine.  
 ACCESSION NUMBER: 1977:517140 CAPLUS  
 DOCUMENT NUMBER: 87:117140  
 TITLE: Fluorodehydroxylation of alcohols  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: Meth. Appl., 17 pp.  
 CODEN: NAXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Dutch  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| NL 7605557  | A    | 19761214 | NL 1976-5557    | 19760524 |
| FI 7601457  | A    | 19761213 | FI 1976-1457    | 19760524 |
| SE 7605910  | A    | 19761213 | SE 1976-5910    | 19760525 |
| DK 7602299  | A    | 19761213 | DK 1976-2299    | 19760525 |
| NO 7601796  | A    | 19761214 | NO 1976-1796    | 19760526 |
| ES 448509   | A1   | 19770701 | ES 1976-448509  | 19760603 |
| CH 621103   | A    | 19810115 | CH 1976-7067    | 19760603 |
| CA 1063617  | A1   | 19791002 | CA 1976-254108  | 19760604 |
| JP 51149208 | A2   | 19761222 | JP 1976-67862   | 19760611 |
| JP 60033808 | B4   | 19850805 |                 |          |

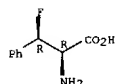
PRIORITY APPLN. INFO.: US 1975-586326 19750612  
 IT 35455-20-OP 76582-46-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 76582-46-2 CAPLUS  
 CN Phenylalanine, β-fluoro-, threo- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L24 ANSWER 304 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Organic compds. having one or more replaceable H atoms are fluorinated  
 in the liquid or solid state by treatment with fluoroxypyrfluoroalkanes or FOSF5  
 under free radical conditions. The method was applied to a large variety  
 of substrates, e.g., mono- or polynuclear aromatic or alicyclic compds.  
 Thus, a cooled solution of C6H6 in FCl3 is irradiated with UV light and  
 treated with FOCF3(g) for 1 h to give 65% PhF.  
 ACCESSION NUMBER: 1977:483904 CAPLUS  
 DOCUMENT NUMBER: 87:83904  
 TITLE: Substitutive fluorination of organic compounds  
 INVENTOR(S): Kollonitsch, Janos  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: U.S., 9 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| US 4030994  | A    | 19770621 | US 1973-404555  | 19731009 |
| NL 7109946  | A    | 19720207 | NL 1971-9946    | 19710719 |
| NL 173388   | B    | 19830816 |                 |          |
| NL 173388   | C    | 19840116 |                 |          |
| AU 7131463  | A1   | 19730125 | AU 1971-31463   | 19710720 |
| CA 967982   | A1   | 19750520 | CA 1971-118803  | 19710721 |
| IT 988052   | A    | 19750410 | IT 1971-51835   | 19710722 |
| GB 1353519  | A    | 19740522 | GB 1971-34887   | 19710726 |
| FR 2101198  | A5   | 19720331 | FR 1971-28394   | 19710803 |
| FR 2101198  | B1   | 19750801 |                 |          |
| FR 2103901  | A5   | 19720414 | FR 1971-28393   | 19710803 |
| ZA 7105185  | A    | 19730328 | ZA 1971-5185    | 19710803 |
| HU 163751   | P    | 19731027 | HU 1971-ME1404  | 19710803 |
| HU 166452   | P    | 19750328 | HU 1971-ME1550  | 19710803 |
| CH 575354   | A    | 19760514 | CH 1971-11408   | 19710803 |
| JP 55044048 | B4   | 19801110 | JP 1971-58028   | 19710803 |
| FR 2142474  | A5   | 19730126 | FR 1972-21616   | 19720615 |
| CA 968368   | A2   | 19750527 | CA 1974-205439  | 19740723 |
| CA 994360   | A2   | 19760803 | CA 1974-210939  | 19741008 |
| AT 7408827  | A    | 19760315 | AT 1974-8827    | 19741104 |
| AT 333246   | B    | 19761110 |                 |          |

PRIORITY APPLN. INFO.: US 1970-60645 19700803  
 US 1971-154695 19710618  
 CA 1971-118803 19710721  
 US 1972-223354 19720203  
 CA 1972-144614 19720613  
 AT 1972-5115 19720614

IT 35455-20-OP  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

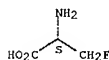
Absolute stereochemistry. Rotation (-).

L24 ANSWER 303 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB 3-Fluoro-D-alanine (35455-20-0) and D-cycloserine [68-41-7] were  
 each capable of protecting mice against infections with various bacteria,  
 but synergistic effects of combinations resulted in equivalent levels of  
 protection at drug concns. of only 5-10% of those required when they were  
 used individually. In addition, concns. of D-cycloserine providing zero  
 protection were capable of reversing the autoantagonism occurring with  
 high concns. of fluoroalanine. If not blocked by cycloserine, this  
 latter effect resulted in a lesser degree of protection from a 5 mg dose of  
 fluoroalanine than from a 1.25 mg dose.  
 ACCESSION NUMBER: 1977:496261 CAPLUS  
 DOCUMENT NUMBER: 87:96261  
 TITLE: Antibacterial composition comprising  
 3-fluoro-D-alanine or deuterio analog in combination  
 with auto-antagonist inhibitor  
 INVENTOR(S): Kahan, Frederick M.  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: U.S., 6 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

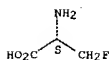
| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| US 4031231 | A    | 19770621 | US 1976-651878  | 19760123 |
| AU 7351368 | A1   | 19740725 | AU 1973-51368   | 19730123 |
| ZA 7300761 | A    | 19740925 | ZA 1973-761     | 19730202 |
| ZA 7404366 | A    | 19750730 | ZA 1974-4366    | 19740708 |
| BE 818335  | A4   | 19750131 | BE 1974-147155  | 19740731 |

PRIORITY APPLN. INFO.: US 1972-223360 19720203  
 US 1972-314878 19721213  
 US 1973-387571 19730810  
 US 1974-478793 19740613  
 IT 35455-20-0  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study);  
 USES (Uses)  
 (antibacterial activity of, in infection, cycloserine synergistic  
 effect on)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L24 ANSWER 304 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)





L24 ANSWER 305 OF 334 CAPLUS COPYRIGHT 2004 ACS ON STN  
AB In contrast to group A streptococci or Streptococcus pneumoniae, cells of S. sanguis (group H) did not exhibit the irreversible effects of benzylpenicillin [61-33-6] treatment, such as loss of viability or lysis. On the other hand, the same bacteria showed typical effects of penicillin,

such as morphological alterations reduction in the rate of cell wall synthesis, and secretion of murein and lipoteichoic acid polymers into the medium. A novel effect of cell wall inhibitors was also noted: treatment with  $\beta$ -lactams caused the release of substantial amts. of glycerol lipids into the growth medium. The antibiotic tolerance of S. sanguis was interpreted in terms of the hypothesis that the activity of bacterial murein hydrolases is essential for the irreversible effects of cell wall inhibitors.

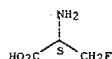
ACCESSION NUMBER: 1977:478967 CAPLUS  
DOCUMENT NUMBER: 87:78967  
TITLE: Tolerant response of Streptococcus sanguis to beta-lactams and other cell wall inhibitors  
AUTHOR(S): Horne, Diane; Tomasz, Alexander  
CORPORATE SOURCE: Rockefeller Univ., New York, NY, USA  
SOURCE: Antimicrobial Agents and Chemotherapy (1977), 11(5), 888-96  
CODEN: AMACQ; ISSN: 0066-4804

DOCUMENT TYPE: Journal  
LANGUAGE: English

IT 35455-20-0  
RL: PRP (Properties)  
in (lipids of Streptococcus sanguis response to, cell wall formation in

relation to)  
RN 35455-20-0 CAPLUS  
CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L24 ANSWER 306 OF 334 CAPLUS COPYRIGHT 2004 ACS ON STN  
AB Antibacterial deuterated 3-fluoro-D-alanines were prepared by direct photochlorination of the corresponding deuterated D-alanine. Thus, alanine was treated with alanine racemase in D2O to give D-alanine-2-d, which was fluorinated with POCP3 in HF in the presence of UV light to give 3-fluoro-D-alanine-2-d. 3-Fluoro-D-alanine and its L-isomer were also prepared by the photochlorination of D- and L-alanine. The D-isomers of deuterated fluoroalanines exhibit both in vivo and in vitro antibacterial activity.

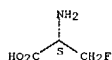
ACCESSION NUMBER: 1977:468655 CAPLUS  
DOCUMENT NUMBER: 87:68655  
TITLE: Fluorinated amino acids  
INVENTOR(S): Kollonitsch, Janos; Kahan, Frederick M.  
PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
SOURCE: U.S., 3 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 6  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| US 4028405             | A    | 19770607 | US 1976-693819  | 19760607 |
| PRIORITY APPLN. INFO.: |      |          | US 1971-149814  | 19710603 |
|                        |      |          | US 1972-238684  | 19720327 |
|                        |      |          | US 1974-514865  | 19741015 |

IT 39621-34-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and neutralization of)  
RN 39621-34-6 CAPLUS  
CN D-Alanine, 3-fluoro-, hydrochloride (9CI) (CA INDEX NAME)

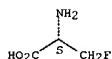
Absolute stereochemistry. Rotation (-).



● HCl

IT 35455-20-0P 35455-21-1P 35523-45-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 35455-20-0 CAPLUS  
CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

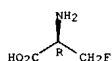
Absolute stereochemistry. Rotation (-).



L24 ANSWER 306 OF 334 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)

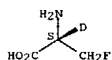
RN 35455-21-1 CAPLUS  
CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 35523-45-6 CAPLUS  
CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

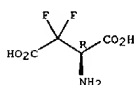


L24 ANSWER 307 OF 334 CAPLUS COPYRIGHT 2004 ACS ON STN  
AB Difluoroacetaldehyde behaved as a competitive inhibitor of 2-oxoglutarate and as a noncompetitive inhibitor with resp. to aspartate in steady-state kinetic expts. with pig heart cytoplasmic aspartate aminotransferase (EC 2.6.1.1) (I). In the presence of high concns. of I difluoroacetaldehyde was slowly transaminated to difluoroaspartate, suggesting its use as a kinetic probe to study the aminic forms of 1.

ACCESSION NUMBER: 1977:417969 CAPLUS  
DOCUMENT NUMBER: 87:17969  
TITLE: Interaction of difluoroacetaldehyde with aspartate transaminase  
AUTHOR(S): Briley, Patricia A.; Eisenthal, Robert; Harrison, Roger; Smith, Geoffrey D.  
CORPORATE SOURCE: Sch. Biol. Sci., Univ. Bath, Bath, UK  
SOURCE: Biochemical Journal (1977), 161(2), 383-7  
CODEN: BIJOAK; ISSN: 0264-6021

DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 63086-45-3  
RL: FORM (Formation, nonpreparative)  
(formation of, from difluoroacetaldehyde, by aspartate aminotransferase)  
RN 63086-45-3 CAPLUS  
CN L-Aspartic acid, 3,3-difluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

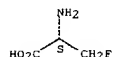


L24 ANSWER 308 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Antibacterial D-HZNCH(CH<sub>2</sub>F)CO<sub>2</sub>H (D-I) was prepared from DL-I by resolving  
 DL-PhCH<sub>2</sub>O<sub>2</sub>CNHC(CH<sub>2</sub>F)CO<sub>2</sub>H (DL-II). Thus, DL-I was treated with  
 PhCH<sub>2</sub>O<sub>2</sub>CCl  
 to give DL-II which was treated with 1-PhCHMeNH<sub>2</sub> (III) to give  
 crystalline  
 D-II.III. The latter was acidified at pH 2 to give D-II which was  
 hydrogenated over Pd-C to give D-I. The antibacterial activities of D-I  
 against 7 bacteria were compared with that of D-cycloserine,  
 tetracycline,  
 and chloramphenicol.  
 ACCESSION NUMBER: 1977:155968 CAPLUS  
 DOCUMENT NUMBER: 86:155968  
 TITLE: 3-Fluoro-D-alanine, 2-deutero-3-fluoro-D-alanine, or  
 2,3,3-trideutero-3-fluoro-D-alanine  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: Austrian, 6 pp. Division of Austrian 322,524.  
 CODEN: AUXXAK  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

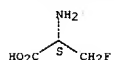
| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| AT 332859  | B    | 19761025 | AT 1974-3124    | 19740416 |
| AT 7403124 | A    | 19760215 |                 |          |
| AT 322524  | B    | 19750526 | AT 1971-10813   | 19711216 |
|            |      |          | AT 1971-10813   | 19711216 |

PRIORITY APPLN. INFO.:  
 IT 35455-20-0P  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological  
 study, unclassified); SPN (Synthetic preparation); BIOL (Biological  
 study); PREP (Preparation)  
 (preparation and antibiotic activity of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

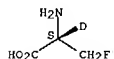


L24 ANSWER 309 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 35523-45-6 CAPLUS  
 CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L24 ANSWER 309 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Antibacterial D-CH<sub>2</sub>FCR(NH<sub>2</sub>)CO<sub>2</sub>H (I, R = H, D) were prepared by an  
 asymmetric  
 reduction of D-CH<sub>2</sub>FCR(NHMePh)CO<sub>2</sub>H.D-H<sub>2</sub>NCHMePh (II). Thus, D-H<sub>2</sub>NCHMePh  
 was  
 treated with CH<sub>2</sub>FCO<sub>2</sub>H to give II which was hydrogenated over Pd-C to  
 give D,D-CH<sub>2</sub>FCR(NHCHMePh)CO<sub>2</sub>H (III, R = H) whose further hydrogenation  
 over Pd/C gave I (R = H). II was deuterated over Pd-C to give III (R =  
 D)  
 which was hydrogenated over Pd/C to give I (R = D).  
 ACCESSION NUMBER: 1977:121774 CAPLUS  
 DOCUMENT NUMBER: 86:121774  
 TITLE: 3-Fluoro-D-alanine and its deutero analogs  
 INVENTOR(S): Reinhold, Donald F.  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: U.S., 4 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| US 3976689  | A    | 19760824 | US 1974-525708  | 19741120 |
| NL 7300577  | A    | 19730807 | NL 1973-577     | 19730115 |
| CS 178418   | P    | 19770915 | CS 1973-478     | 19730122 |
| AU 7351369  | A1   | 19740725 | AU 1973-51369   | 19730123 |
| CA 1001652  | A1   | 19761214 | CA 1973-161915  | 19730124 |
| AT 324294   | B    | 19750825 | AT 1973-790     | 19730130 |
| ES 411143   | A1   | 19751201 | ES 1973-411143  | 19730131 |
| PL 84511    | P    | 19760430 | PL 1973-160498  | 19730131 |
| DD 108522   | C    | 19740920 | DD 1973-168612  | 19730201 |
| GB 1380382  | A    | 19750115 | GB 1973-5087    | 19730201 |
| DD 114594   | C    | 19750812 | DD 1973-181401  | 19730201 |
| JP 48085524 | A2   | 19731113 | JP 1973-13024   | 19730202 |
| ZA 7300777  | A    | 19741030 | ZA 1973-777     | 19730202 |
| SU 485592   | D    | 19750925 | SU 1973-1878868 | 19730202 |
| HU 168659   | P    | 19760628 | HU 1973-ME1599  | 19730202 |
| CH 585694   | A    | 19770315 | CH 1973-1489    | 19730202 |
| FR 2197859  | A1   | 19740329 | FR 1973-35004   | 19731001 |
| NO 7503750  | A    | 19760521 | NO 1975-3750    | 19751110 |
| NL 7513137  | A    | 19760524 | NL 1975-13137   | 19751110 |
| FI 7503167  | A    | 19760521 | FI 1975-3167    | 19751111 |
| CH 619685   | A    | 19801015 | CH 1975-14590   | 19751111 |
| SE 7512699  | A    | 19760521 | SE 1975-12699   | 19751112 |
| DK 7505155  | A    | 19760521 | DK 1975-5155    | 19751114 |
| DD 124972   | C    | 19770323 | DD 1975-189536  | 19751118 |
| ES 442779   | A1   | 19770916 | ES 1975-442779  | 19751118 |
| JP 51075020 | A2   | 19760629 | JP 1975-138818  | 19751120 |
|             |      |          | US 1972-223355  | 19720203 |
|             |      |          | US 1974-525708  | 19741120 |

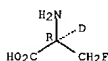
PRIORITY APPLN. INFO.:  
 IT 35455-20-0P 35523-45-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L24 ANSWER 310 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB 3-fluoro-DL-alanine-2-d and its unlabeled analog were resolved by  
 preparing  
 the highly acid labile N-(1-methyl-2-acetylvinyl) amino acids as the  
 quinine salts, and separating the diastereomers by crystallization.  
 ACCESSION NUMBER: 1977:55679 CAPLUS  
 DOCUMENT NUMBER: 86:55679  
 TITLE: A new and simple method of resolution. Preparation  
 of  
 3-fluoro-D-alanine-2-d  
 AUTHOR(S): Gal, George; Chamerda, John M.; Reinhold, Donald F.;  
 Purick, Robert M.  
 CORPORATE SOURCE: Merck Sharp and Dohme Res. Lab., Merck and Co., Inc.,  
 Rahway, NJ, USA  
 SOURCE: Journal of Organic Chemistry (1977), 42(1), 142-3  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 61042-77-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and acidification of)  
 RN 61042-77-1 CAPLUS  
 CN L-Alanine-2-d, 3-fluoro-, compd. with (8a,9R)-6'-methoxycinchonan-9-  
 ol (9CI) (CA INDEX NAME)

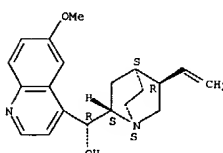
CM 1  
 CRN 59189-05-8  
 CMF C3 H5 D F N O2

Absolute stereochemistry.



CM 2  
 CRN 130-95-0  
 CMF C20 H24 N2 O2

Absolute stereochemistry.



IT 35455-20-0P 35455-21-1P 35523-45-6P

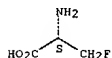
L24 ANSWER 310 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

RL: SPN (Synthetic preparation); PREP (Preparation)

RN 35455-20-0 CAPLUS

CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

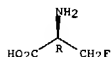
Absolute stereochemistry. Rotation (-).



RN 35455-21-1 CAPLUS

CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

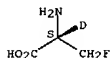
Absolute stereochemistry.



RN 35523-45-6 CAPLUS

CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L24 ANSWER 311 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

L24 ANSWER 311 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN

AB The carbon atoms in amines, amino acids, polyamides, and vinyl polymers are fluorinated by dissolving or suspending the substrate in liquid HF, optionally containing BF<sub>3</sub> or SbF<sub>5</sub>, at -80 to +15° and treating with F optionally under UV radiation. Thus, 5 mL liquid BF<sub>3</sub> was added as a gas to

0.377 g D-alanine [338-69-2] in 30 mL HF at -78°, and the mixture was then treated with gaseous F as a 2% volume mixture with He for 2 h at -78° with UV irradiation, giving 3-fluoro-D-alanine [35455-20-0]. Other compds. fluorinated included putrescine [110-60-1], spermine [71-44-3], and polycaprolactam [25038-54-4].

ACCESSION NUMBER: 1977:44236 CAPLUS  
DOCUMENT NUMBER: 86:44236  
TITLE: Fluorination of organic compounds  
PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
SOURCE: Meth. Appl., 15 pp.  
CODEN: NAXXAN  
DOCUMENT TYPE: Patent  
LANGUAGE: Dutch  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|----------------|------|----------|-----------------|----------|
| NL 7514240     | A    | 19760625 | NL 1975-14240   | 19751205 |
| US 4004996     | A    | 19770125 | US 1974-535878  | 19741223 |
| SE 7513572     | A    | 19760624 | SE 1975-13572   | 19751202 |
| FI 7503406     | A    | 19760624 | FI 1975-3406    | 19751203 |
| DK 7505502     | A    | 19760624 | DK 1975-5502    | 19751205 |
| NO 7504154     | A    | 19760624 | NO 1975-4154    | 19751209 |
| PL 102457      | P    | 19790331 | PL 1975-185738  | 19751220 |
| JP 51088901    | A2   | 19760804 | JP 1975-152939  | 19751223 |
| ES 443836      | A1   | 19770801 | ES 1975-443836  | 19751223 |
| US 1974-535878 |      |          |                 | 19741223 |

PRIORITY APPL. INFO.:  
IT 35455-20-0P 35523-45-6P

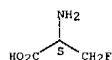
RL: PREP (Preparation)

(preparation of)

RN 35455-20-0 CAPLUS

CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

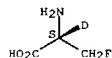
Absolute stereochemistry. Rotation (-).



RN 35523-45-6 CAPLUS

CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L24 ANSWER 312 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN

AB A complementary approach to the calcn. of conformation of charged

species, i.e. histamine, 2-fluoro-β-alanin, and 3-fluoro-L-alanine, in which a counter-ion is attached at an appropriate point and the wave function of the resulting neutral ion-pair is evaluated was used to determine the energies of the rotamers with CNDO MO calcns. The effects of the counter ions were

also determined

ACCESSION NUMBER: 1976:577920 CAPLUS

DOCUMENT NUMBER: 85:177920

TITLE: Approaches to the problem of solvation calculations in

polar and charged molecules

AUTHOR(S): Abraham, R. J.

CORPORATE SOURCE: Robert Robinson Lab., Univ. Liverpool, Liverpool, UK

SOURCE: Jerusalem Symposium on Quantum Chemistry and

Biochemistry (1976), Volume Date 1975, 8(Environ.

Eff.

Mol. Struct. Prop.), 41-53

CODEN: JSQCA7; ISSN: 0075-3696

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 35455-21-1

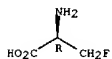
RL: RCT (Reactant); RACT (Reactant or reagent)

(solvation calcns. of, rotamer energy from)

RN 35455-21-1 CAPLUS

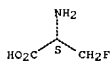
CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

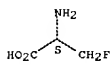
Absolute stereochemistry.



L24 ANSWER 313 OF 334 CAPLUS COPYRIGHT 2004 ACS ON STN  
AB DL-β-bromoalanine-HBr was prepared from DL-β-chloroalanine-HCl and shown to be a good substrate for pig kidney D-amino acid oxidase, undergoing the O-independent elimination of HBr exclusively. D-fluoroalanine, however, undergoes only the normal oxidation reaction to fluoropyruvate.

ACCESSION NUMBER: 1976:573369 CAPLUS  
DOCUMENT NUMBER: 85:173369  
TITLE: Reactions of β-fluoroalanine and β-bromoalanine with D-amino acid oxidase  
AUTHOR(S): Dang, Tre-Yu; Cheung, Yak-Fa; Walsh, Christopher  
CORPORATE SOURCE: Dep. Chem. Biol., Massachusetts Inst. Technol., Cambridge, MA, USA  
SOURCE: Biochemical and Biophysical Research Communications (1976), 72(3), 960-8  
CODEN: BBRCA9; ISSN: 0006-291X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 35455-20-0  
RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with amino acid oxidase)  
RN 35455-20-0 CAPLUS  
CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  




L24 ANSWER 314 OF 334 CAPLUS COPYRIGHT 2004 ACS ON STN  
AB 3-Fluoro-D-alanine, useful against gram-neg. and gram pos. bacteria (no data), was prepared in 41% yield by treatment of D-alanine with F3COF(g) in liquid HF for 1 hr. Esterification gave the corresponding methyl and benzyl esters.

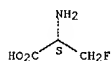
ACCESSION NUMBER: 1976:560526 CAPLUS  
DOCUMENT NUMBER: 85:160526  
TITLE: 3-Fluoro-D-alanine and pharmacologically acceptable esters, and pharmacologically acceptable salts  
INVENTOR(S): Kollonitsch, Janos  
PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
SOURCE: U.S., 4 pp. Continuation-in-part of U.S. 3,839,170.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 6  
PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| US 3956367 | A    | 19760511 | US 1974-494945  | 19740805 |
| FR 2101198 | A5   | 19720331 | FR 1971-28394   | 19710803 |
| FR 2101198 | B1   | 19750801 |                 |          |
| FR 2103901 | A5   | 19720414 | FR 1971-28393   | 19710803 |
| ZA 7105185 | A    | 19730328 | ZA 1971-5185    | 19710803 |
| HU 166452  | P    | 19750528 | HU 1971-ME1550  | 19710803 |
| US 3839170 | A    | 19741001 | US 1972-245288  | 19720418 |
| PL 90080   | P    | 19761231 | PL 1972-156081  | 19720615 |
| CA 968368  | A2   | 19750527 | CA 1974-205439  | 19740723 |
| CA 994360  | A2   | 19760803 | CA 1974-210939  | 19741008 |
| AT 7408827 | A    | 19760315 | AT 1974-8827    | 19741104 |
| AT 333246  | B    | 19761110 |                 |          |
| AT 7502890 | A    | 19760815 | AT 1975-2890    | 19750416 |
| AT 33592   | B    | 19770412 |                 |          |

PRIORITY APPLN. INFO.:  
US 1970-60645 19700803  
US 1972-223354 19720203  
US 1972-245288 19720418  
US 1971-154695 19710618  
CA 1971-118803 19710721  
CA 1972-144614 19720613  
AT 1972-5115 19720614

IT 35455-20-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and esterification of)  
RN 35455-20-0 CAPLUS  
CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

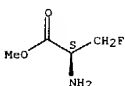
Absolute stereochemistry. Rotation (-).



IT 60644-02-2P 60644-03-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)

L24 ANSWER 314 OF 334 CAPLUS COPYRIGHT 2004 ACS ON STN (Continued)  
RN 60644-02-2 CAPLUS (prepn. of)  
CN D-Alanine, 3-fluoro-, methyl ester, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



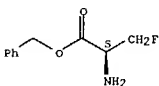
● HCl

RN 60644-03-3 CAPLUS  
CN D-Alanine, 3-fluoro-, phenylmethyl ester, 4-methylbenzenesulfonate (9CI) (CA INDEX NAME)

CM 1

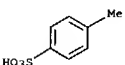
CRN 46344-20-1  
CMF C10 H12 F N O2

Absolute stereochemistry.



CM 2

CRN 104-15-4  
CMF C7 H8 O3 S



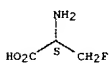
L24 ANSWER 315 OF 334 CAPLUS COPYRIGHT 2004 ACS ON STN  
AB The antibacterials 3-fluoro-D-alanine (I) and its 2-deuterated version (II) were prepared. The design of I exploits a fundamental divergence in biosynthesis of the peptidoglycan component of the bacterial cell wall and

of the metabolic pathways in humans. This divergence suggested application of the concept of antimetabolite synthesis via the specific approach of photofluorination. Thus, photofluorination of (D-alanine generated I which displays a high degree of antibacterial activity. A variant of I increased metabolic stability and with unimpaired antibacterial activity was obtained via photofluorination of 2-deuterio-D-alanine, namely 3-fluoro-D-alanine-2d (II), effective in vitro and in vivo against every bacterial strain tested.

ACCESSION NUMBER: 1976:543444 CAPLUS  
DOCUMENT NUMBER: 85:143444  
TITLE: Organofluorine synthesis via photofluorination: 3-fluoro-D-alanine and 2-deuterio analog, antibacterials related to the bacterial cell wall  
AUTHOR(S): Kollonitsch, J.; Barash, L.  
CORPORATE SOURCE: Merck Sharp and Dohme Res. Lab., Div., Merck and Co., Inc., Rahway, NJ, USA  
SOURCE: Journal of the American Chemical Society (1976), 98(18), 5591-3  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 35455-20-0P 35455-21-1P 35523-45-6P

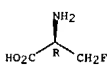
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 35455-20-0 CAPLUS  
CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



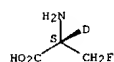
RN 35455-21-1 CAPLUS  
CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



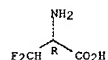
RN 35523-45-6 CAPLUS  
CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



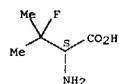
L24 ANSWER 316 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
 RN 59729-23-6 CAPLUS  
 CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 59752-73-7 CAPLUS  
 CN D-Valine, 3-fluoro-, hydrochloride (9CI) (CA INDEX NAME)

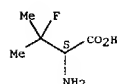
Absolute stereochemistry.



● HCl

RN 59752-74-8 CAPLUS  
 CN D-Valine, 3-fluoro- (9CI) (CA INDEX NAME)

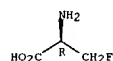
Absolute stereochemistry.



L24 ANSWER 316 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB The reactions of 2-aminothiols and thiol amino acids in liquid HF solution with either FOClF<sub>3</sub>, Cl<sub>2</sub>, N-chlorosuccinimide, or a fluorine-helium mixture are described. The cleavage of the C-S bond with concomitant formation of a C-F bond is observed, giving aminoalkyl fluorides and fluoro amino acids. D-penicillamine (1) was converted to D-3-fluorovaline (2) in near quant. yield while other amino thiols, following more complex pathways, furnish lower yields of the resp. fluoroproducts. The proposed mechanisms involve dihalosulfonium salts or trifluorosulfur dications which should be very good leaving groups, reacting with HF, either in a unimol. sense as in the case of penicillamine, or possibly via a bimol. mode, as in the case of cysteine. In either case, the solvent appears to be the source of fluorine in the C-F bond. A carbocation-type conversion of some alcs. to thiols was effected by reacting the appropriate alcs. with H<sub>2</sub>S in liquid HF.

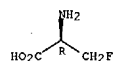
HF.  
 ACCESSION NUMBER: 1976:524325 CAPLUS  
 DOCUMENT NUMBER: 85:124325  
 TITLE: Fluorodesulfurization. A new reaction for the formation of carbon-fluorine bonds  
 AUTHOR(S): Kollonitsch, J.; Marburg, S.; Perkins, Leroy M.  
 CORPORATE SOURCE: Merck Sharp and Dohme Res. Lab., Div., Merck and Co., Inc., Rahway, NJ, USA  
 SOURCE: Journal of Organic Chemistry (1976), 41(19), 3107-11  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 85:124325  
 IT 35455-21-1P 59729-22-5P 59729-23-6P  
 59752-73-7P 59752-74-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 RN 35455-21-1 CAPLUS  
 CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 59729-22-5 CAPLUS  
 CN L-Alanine, 3-fluoro-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

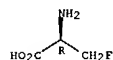
L24 ANSWER 317 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Treatment of 3-fluoro-L-alanine with 6N HBr and NaNO<sub>2</sub> gave L-2-bromo-3-fluoropropionic acid which reacted with liquid NH<sub>3</sub> in a bomb for 5 days to give 3-fluoro-D-alanine, useful as a bactericide (no data). Similarly, 2-deutero-3-fluoro-L-alanine, prepared from EtO<sub>2</sub>CCOCHFCO<sub>2</sub>Et, gave 2-deutero-3-fluoro-D-alanine.

ACCESSION NUMBER: 1976:447053 CAPLUS  
 DOCUMENT NUMBER: 85:47053  
 TITLE: Asymmetric conversion of 3-fluoro-L-alanine and 2-deutero-3-fluoro-L-alanine to their D-isomers  
 INVENTOR(S): Reinhold, Donald F.  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: U.S., 5 pp. Continuation-in-part of U.S. 3,880,922.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| US 3950411             | A    | 19760413 | US 1975-552474  | 19750224 |
| US 3880922             | A    | 19750429 | US 1972-223292  | 19720203 |
| FI 7600302             | A    | 19760825 | FI 1976-302     | 19760209 |
| SE 7601423             | A    | 19760825 | SE 1976-1423    | 19760210 |
| DK 7600559             | A    | 19760825 | DK 1976-559     | 19760211 |
| NO 7600448             | A    | 19760825 | NO 1976-448     | 19760212 |
| NL 7601511             | A    | 19760826 | NL 1976-1511    | 19760213 |
| AU 7611178             | A1   | 19770825 | AU 1976-11178   | 19760217 |
| AU 500536              | B2   | 19790524 |                 |          |
| CH 620194              | A    | 19801114 | CH 1976-1930    | 19760217 |
| CA 1045157             | A1   | 19781226 | CA 1976-246060  | 19760218 |
| GB 1488332             | A    | 19771012 | GB 1976-5655    | 19760219 |
| FR 2301513             | A1   | 19760917 | FR 1976-4715    | 19760220 |
| FR 2301513             | B1   | 19790202 |                 |          |
| ES 445381              | A1   | 19770601 | ES 1976-445381  | 19760220 |
| DE 2607252             | A1   | 19760902 | DE 1976-2607252 | 19760223 |
| CS 199274              | P    | 19800731 | CS 1976-1182    | 19760223 |
| JP 51110513            | A2   | 19760930 | JP 1976-18580   | 19760224 |
| HU 173362              | P    | 19790428 | HU 1976-ME1954  | 19760224 |
| PRIORITY APPLN. INFO.: |      |          | US 1972-223292  | 19720203 |
|                        |      |          | US 1975-552474  | 19750224 |

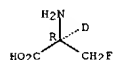
IT 35455-21-1 59189-05-8  
 RL: PROC (Process)  
 (asymmetric conversion of)  
 RN 35455-21-1 CAPLUS  
 CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



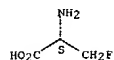
RN 59189-05-8 CAPLUS  
 CN L-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



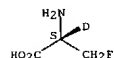
IT 35455-20-0P 35523-45-6P 59189-06-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 35523-45-6 CAPLUS  
 CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

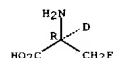


RN 59189-06-9 CAPLUS  
 CN L-Alanine-2-d, 3-fluoro-, benzenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 59189-05-8  
 CMF C3 H5 D F N O2

Absolute stereochemistry.



CM 2

CRN 98-11-3  
 CMF C6 H6 O3 S

AB 2-Deutero-3-fluoro-DL-alanine benzenesulfonate was resolved by crystallization.

Treatment of the D-isomer with dilute NH3 gave 3-deutero-3-fluoro-D-alanine

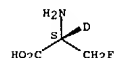
useful as a bactericide (no data).

ACCESSION NUMBER: 1976:180629 CAPLUS  
 DOCUMENT NUMBER: 84:180629  
 TITLE: Resolution of 2-deutero-3-fluoro-DL-alanine salts  
 INVENTOR(S): Reinhold, Donald F.  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: Ger. Offen., 10 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| DE 2534031  | A1   | 19760212 | DE 1975-2534031 | 19750730 |
| NO 7502551  | A    | 19760203 | NO 1975-2751    | 19750717 |
| NO 140368   | C    | 19790822 |                 |          |
| NO 140368   | B    | 19790514 |                 |          |
| CA 1054158  | A1   | 19790508 | CA 1975-231941  | 19750721 |
| AU 7583316  | A1   | 19770127 | AU 1975-83316   | 19750723 |
| AU 497991   | B2   | 19790201 |                 |          |
| FI 7502130  | A    | 19760201 | FI 1975-2130    | 19750724 |
| CH 598194   | A    | 19780428 | CH 1975-9682    | 19750724 |
| BE 831760   | A1   | 19760126 | BE 1975-158335  | 19750725 |
| NL 7508925  | A    | 19760203 | NL 1975-8925    | 19750725 |
| SE 7508553  | A    | 19760202 | SE 1975-8553    | 19750728 |
| GB 1472396  | A    | 19770504 | GB 1975-31488   | 19750728 |
| FR 2280366  | A1   | 19760227 | FR 1975-23617   | 19750729 |
| FR 2280366  | B1   | 19820730 |                 |          |
| DD 119209   | C    | 19760412 | DD 1975-187544  | 19750729 |
| DK 7503458  | A    | 19760201 | DK 1975-3458    | 19750730 |
| ZA 7504918  | A    | 19770330 | ZA 1975-4918    | 19750730 |
| ES 439857   | A1   | 19770616 | ES 1975-439857  | 19750730 |
| SU 568362   | D    | 19770805 | SU 1975-2163062 | 19750730 |
| CS 191271   | P    | 19790629 | CS 1975-5338    | 19750730 |
| PL 103968   | P    | 19790731 | PL 1975-182389  | 19750730 |
| JP 51039626 | A2   | 19760402 | JP 1975-92656   | 19750731 |
| HU 170472   | P    | 19770628 | HU 1975-ME1881  | 19750731 |
|             |      |          | US 1974-493352  | 19740731 |

PRIORITY APPLN. INFO.:  
 IT 35523-45-6P 59189-06-9P 59189-07-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 35523-45-6 CAPLUS  
 CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 59189-06-9 CAPLUS

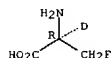


CN L-Alanine-2-d, 3-fluoro-, benzenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 59189-05-8  
 CMF C3 H5 D F N O2

Absolute stereochemistry.



CM 2

CRN 98-11-3  
 CMF C6 H6 O3 S

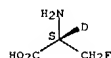


RN 59189-07-0 CAPLUS  
 CN D-Alanine-2-d, 3-fluoro-, benzenesulfonate (9CI) (CA INDEX NAME)

CM 1

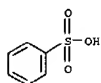
CRN 35523-45-6  
 CMF C3 H5 D F N O2

Absolute stereochemistry.



CM 2

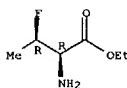
CRN 98-11-3  
 CMF C6 H6 O3 S



L24 ANSWER 319 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB DL- and L-Threonine were esterified to their Me and Et esters which on treatment with SF4 in anhydrous HF gave DL- and L-Me and Et 2-amino-3-fluorobutyrate, resp. Both fluorinated esters gave on hydrolysis DL- and L-2-amino-3-fluorobutyric acid, resp.

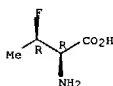
ACCESSION NUMBER: 1976:122271 CAPLUS  
 DOCUMENT NUMBER: 84:122271  
 TITLE: The synthesis of DL- and L-2-amino-3-fluorobutyric acid  
 AUTHOR(S): Loy, R. S.; Hudlicky, M.  
 CORPORATE SOURCE: Dep. Chem., Virginia Polytech. Inst., Blacksburg, VA, USA  
 SOURCE: Journal of Fluorine Chemistry (1976), 7(4), 421-6  
 CODEN: JFLCAR; ISSN: 0022-1139  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 58960-34-2P 58960-35-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 58960-34-2 CAPLUS  
 CN Butanoic acid, 2-amino-3-fluoro-, ethyl ester, [R-(R\*,R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 58960-35-3 CAPLUS  
 CN Butanoic acid, 2-amino-3-fluoro-, [R-(R\*,R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



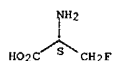
L24 ANSWER 320 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Treatment of D-PhCHMeNH2 with FCH2COCO2H gave FCH2C(:NHCHMePh)CO2H which was hydrogenated with Pd/C followed by hydrogenolysis to give the bactericidal (no data) 3-fluoro-D-alanine. Hydrogenation with deuterium gave 2-deutero-3-fluoro-D-alanine.

ACCESSION NUMBER: 1976:106074 CAPLUS  
 DOCUMENT NUMBER: 84:106074  
 TITLE: 3-Fluoro-D-alanine  
 INVENTOR(S): Reinhold, Donald F.  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: U.S., 2 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| US 3929576             | A    | 19751230 | US 1974-525591  | 19741120 |
| NL 7300577             | A    | 19730807 | NL 1973-577     | 19730115 |
| CS 178418              | P    | 19770915 | CS 1973-478     | 19730122 |
| AU 7351369             | A1   | 19740725 | AU 1973-51369   | 19730123 |
| CA 1001652             | A1   | 19761214 | CA 1973-161915  | 19730124 |
| AT 324294              | B    | 19750825 | AT 1973-790     | 19730130 |
| ES 411143              | A1   | 19751201 | ES 1973-411143  | 19730131 |
| PL 84511               | P    | 19760430 | PL 1973-160498  | 19730131 |
| DD 108522              | C    | 19740920 | DD 1973-168612  | 19730201 |
| GB 1380382             | A    | 19750115 | GB 1973-5087    | 19730201 |
| DD 114594              | C    | 19750812 | DD 1973-181401  | 19730201 |
| JP 48085524            | A2   | 19731113 | JP 1973-13024   | 19730202 |
| ZA 7300777             | A    | 19741030 | ZA 1973-777     | 19730202 |
| SU 485592              | D    | 19750925 | SU 1973-1878868 | 19730202 |
| HU 168659              | P    | 19760628 | HU 1973-ME1599  | 19730202 |
| CH 585694              | A    | 19770315 | CH 1973-1489    | 19730202 |
| FR 2197859             | A1   | 19740329 | FR 1973-35004   | 19731001 |
| PRIORITY APPLN. INFO.: |      |          | US 1972-223355  | 19720203 |

IT 35455-20-0P 35523-45-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

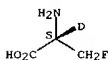
Absolute stereochemistry. Rotation (-).



RN 35523-45-6 CAPLUS  
 CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L24 ANSWER 320 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

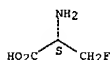


L24 ANSWER 321 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Treatment of FCH<sub>2</sub>CHO with D-PhCHMeNH<sub>2</sub> gave the corresponding acetaldimine which then reacted with HCN to give D-PhCHMeNHCH(CN)CH<sub>2</sub>F. Acid hydrolysis of the propionitrile followed by methylbenzyl cleavage by hydrolysis gave 3-fluoro-D-alanine useful as a bactericide (no data).  
 ACCESSION NUMBER: 1976:106072 CAPLUS  
 DOCUMENT NUMBER: 84:106072  
 TITLE: 3-Fluoro-D-alanine  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: Austrian, 3 pp.  
 CODEN: AUXXAK  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| AT 326096   | B    | 19751125 | AT 1973-789     | 19730130 |
| AT 7300789  | A    | 19750215 |                 |          |
| US 3903150  | A    | 19750902 | US 1972-223340  | 19720203 |
| NL 7300575  | A    | 19730807 | NL 1973-575     | 19730115 |
| SE 402008   | C    | 19780921 | SE 1973-698     | 19730118 |
| CA 1001650  | A1   | 19761214 | CA 1973-161903  | 19730124 |
| PL 84510    | P    | 19760430 | PL 1973-160435  | 19730127 |
| ES 411142   | A1   | 19751201 | ES 1973-411142  | 19730131 |
| DD 108074   | C    | 19740912 | DD 1973-168609  | 19730201 |
| SU 484682   | D    | 19750915 | SU 1973-1878072 | 19730201 |
| JP 48085522 | A2   | 19731113 | JP 1973-13022   | 19730202 |
| HU 169231   | P    | 19761028 | HU 1973-ME1600  | 19730202 |
| CH 582648   | A    | 19761215 | CH 1973-1488    | 19730202 |
|             |      |          | US 1972-223340  | 19720203 |

PRIORITY APPLN. INFO.:  
 IT 35485-20-0P 39621-34-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

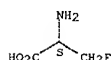
Absolute stereochemistry. Rotation (-).



RN 39621-34-6 CAPLUS  
 CN D-Alanine, 3-fluoro-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L24 ANSWER 321 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



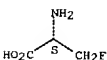
● HCl

L24 ANSWER 322 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB 3-Fluoro-D-alanine, prepared by treatment of D-alanine with HF-FOC F3 for 1 hr, had ED50 of 0.104-0.897 mg s. against 7 bacterial strains. Deuteration of D-alanine gave the 2-deutero-D-alanine in 95% yield which was then fluorinated in the 3 position.  
 ACCESSION NUMBER: 1975:497936 CAPLUS  
 DOCUMENT NUMBER: 83:97936  
 TITLE: 3-Fluoro-D-alanine, 2-deutero-3-fluoro-D-alanine, or 2,3,3-trideutero-3-fluoro-D-alanine and their salts  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: Austrian, 5 pp.  
 CODEN: AUXXAK  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| AT 322524  | B    | 19750526 | AT 1971-10813   | 19711216 |
| AT 332859  | B    | 19761025 | AT 1974-3124    | 19740416 |
| AT 7403124 | A    | 19760215 |                 |          |

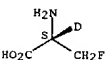
PRIORITY APPLN. INFO.:  
 IT 35455-20-0  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation and bactericidal activity of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 35523-45-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 35523-45-6 CAPLUS  
 CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L24 ANSWER 323 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 GI For diagram(s), see printed CA Issue.  
 AB The undesired property of autoantagonism exhibited by 3-fluoro-D-alanine [ 35455-20-0] type agents was completely suppressed by cycloserine derivs. I (R = H or Me, R' = H or alkyl). E.g., cycloserine [68-41-7] was treated with 2,4-pentanedione [123-54-6] to give D-4-(1-methyl-3-oxo-1-butenylamino)-3-isoxazolidinone (II) [55694-83-2]. Bactericidal agents in suitable carriers for oral administration and for injection were prepared from the combinations of these autoantagonist inhibitors e.g., II Na salt [55851-86-0] or II Ca salt [55851-87-1] with 3-fluoro-D-alanine derivs.  
 ACCESSION NUMBER: 1975:484873 CAPLUS  
 DOCUMENT NUMBER: 83:84873  
 TITLE: Bactericidal composition containing a 3-fluoro-D-alanine and a cycloserine  
 INVENTOR(S): Kahan, Frederick M.  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: Ger. Offen., 12 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| DE 2436959 | A1   | 19750220 | DE 1974-2436959 | 19740731 |
| DE 2436959 | C2   | 19870305 |                 |          |
| ZA 7404366 | A    | 19750730 | ZA 1974-4366    | 19740708 |
| NL 7409574 | A    | 19750212 | NL 1974-9574    | 19740715 |
| NL 181407  | B    | 19870316 |                 |          |
| NL 181407  | C    | 19870817 |                 |          |
| AU 7471250 | A1   | 19760115 | AU 1974-71250   | 19740715 |
| GB 1457950 | A    | 19761208 | GB 1974-32360   | 19740722 |
| CA 1039191 | A1   | 19780926 | CA 1974-205968  | 19740730 |
| BE 818335  | A4   | 19750131 | BE 1974-147155  | 19740731 |
| FR 2240000 | A2   | 19750307 | FR 1974-27593   | 19740808 |
|            |      |          | US 1973-387571  | 19730810 |
|            |      |          | US 1974-478793  | 19740613 |

PRIORITY APPLN. INFO.:



L24 ANSWER 324 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB 3-Fluoro-D-alanine (I), useful as a bactericide (no data), was prepared by  
 treatment of 3-fluoro-L-alanine with HBr and NaNO<sub>2</sub> to give  
 L-2-bromo-3-fluoropropionic acid which underwent ammonolysis with liquid  
 NH<sub>3</sub>  
 or treatment with NaN<sub>3</sub> to give the 2-azido derivative hydrogenation of  
 which  
 with Pd/C gave I. Me 2-carboxy-3-fluoropropionate was prepared and  
 resolved  
 to give the S-isomer which reacted with NaN<sub>3</sub> to give Me  
 S-2-azidocarbonyl-3-fluoropropionate which underwent decomposition to the  
 2-isocyanato and hydrolysis to give I.  
 ACCESSION NUMBER: 1975:443747 CAPLUS  
 DOCUMENT NUMBER: 83:43747  
 TITLE: 3-Fluoro-D-alanine by asymmetric rearrangement of  
 2-(azidocarbonyl)-3-fluoro-propionic ester or nitrile  
 Reinhold, Donald F.  
 INVENTOR(S): Merck and Co., Inc., USA  
 PATENT ASSIGNEE(S): U.S., 4 pp.  
 SOURCE: CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

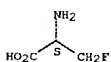
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| US 3880922  | A    | 19750429 | US 1972-223292  | 19720203 |
| CH 586654   | A    | 19770415 | CH 1972-18918   | 19721227 |
| NL 7300631  | A    | 19730807 | NL 1973-631     | 19730116 |
| SE 402007   | C    | 19780921 | SE 1973-696     | 19730118 |
| PL 84478    | P    | 19760430 | PL 1973-160398  | 19730124 |
| CA 1001651  | A1   | 19761214 | CA 1973-161912  | 19730124 |
| DD 103889   | C    | 19740212 | DD 1973-168486  | 19730125 |
| AT 7300792  | A    | 19750215 | AT 1973-792     | 19730130 |
| AT 326097   | B    | 19751125 |                 |          |
| ES 411140   | A1   | 19760316 | ES 1973-411140  | 19730131 |
| CS 178419   | P    | 19770915 | CS 1973-742     | 19730131 |
| SU 550976   | D    | 19770315 | SU 1973-1878069 | 19730201 |
| JP 48085521 | A2   | 19731113 | JP 1973-13021   | 19730202 |
| HU 170186   | P    | 19770428 | HU 1973-ME1601  | 19730202 |
| US 3950411  | A1   | 19760413 | US 1975-552474  | 19750224 |
| ES 438617   | A1   | 19770316 | ES 1975-438617  | 19750616 |
| ES 438616   | A1   | 19770416 | ES 1975-438616  | 19750616 |

PRIORITY APPLN. INFO.: US 1972-223292 19720203  
 IT 35455-20-0P  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological  
 study, unclassified); SPN (Synthetic preparation); BIOL (Biological  
 study); PREP (Preparation)  
 (bactericide, preparation of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)  
 Absolute stereochemistry. Rotation (-).

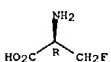
L24 ANSWER 325 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Bactericidal (no data) 3-fluoro-D-alanine was prepared via selective  
 asymmetric hydrolysis of N-chloroacetyl-3-fluoro-DL-alanine with  
 renalacylase I to give 3-fluoro-L-alanine, which crystallized out, and  
 N-chloroacetyl-3-fluoro-D-alanine, which was hydrolyzed with 2N aqueous  
 HCl  
 for 2 hr at 100°.  
 ACCESSION NUMBER: 1975:410859 CAPLUS  
 DOCUMENT NUMBER: 83:10859  
 TITLE: 3-Fluoro-D-alanine  
 PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
 SOURCE: Austrian, 2 pp.  
 CODEN: AUXXAK  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| AT 317123   | B    | 19740812 | AT 1973-793     | 19730130 |
| NL 7300578  | A    | 19730807 | NL 1973-578     | 19730115 |
| CS 171275   | P    | 19761029 | CS 1973-476     | 19730122 |
| PL 84477    | P    | 19760430 | PL 1973-160434  | 19730127 |
| ES 411141   | A1   | 19751201 | ES 1973-411141  | 19730131 |
| DD 106164   | C    | 19740612 | DD 1973-168611  | 19730201 |
| SU 484683   | D    | 19750915 | SU 1973-1878073 | 19730201 |
| JP 48085789 | A2   | 19731113 | JP 1973-13025   | 19730202 |
| CH 575355   | A    | 19760514 | CH 1973-1486    | 19730202 |

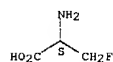
PRIORITY APPLN. INFO.: US 1972-223293 19720203  
 IT 35455-20-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (bactericide, preparation of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)  
 Absolute stereochemistry. Rotation (-).



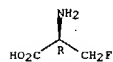
IT 35455-21-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 35455-21-1 CAPLUS  
 CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)  
 Absolute stereochemistry.



L24 ANSWER 324 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



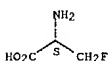
IT 35455-21-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (epimerization of)  
 RN 35455-21-1 CAPLUS  
 CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)  
 Absolute stereochemistry.



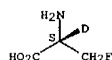
L24 ANSWER 326 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB D-FCH<sub>2</sub>CH(NH<sub>2</sub>)CO<sub>2</sub>H was prepared by treating D-PHCHMeNH<sub>2</sub> with FCH<sub>2</sub>CO<sub>2</sub>H,  
 hydrogenating the D-PHCHMeNH<sub>2</sub> over Pd-C and debenzylating in a  
 2nd hydrogenation step. When the hydrogenation was carried out with  
 deuterium, DFCH<sub>2</sub>CD(NH<sub>2</sub>)CO<sub>2</sub>H was obtained.  
 ACCESSION NUMBER: 1974:83648 CAPLUS  
 DOCUMENT NUMBER: 80:83648  
 TITLE: Asymmetric synthesis of 3-fluoro-D-alanine  
 INVENTOR(S): Reinhold, Donald F.  
 PATENT ASSIGNEE(S): Merck and Co., Inc.  
 SOURCE: Fr. Demande, 6 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| FR 2170180  | A1   | 19730914 | FR 1973-3666    | 19730202 |
| FR 2170180  | B1   | 19770422 |                 |          |
| NL 7300577  | A    | 19730807 | NL 1973-577     | 19730115 |
| CS 178418   | P    | 19770915 | CS 1973-478     | 19730122 |
| AU 7351369  | A1   | 19740725 | AU 1973-51369   | 19730123 |
| CA 1001652  | A1   | 19761214 | CA 1973-161915  | 19730124 |
| AT 324294   | B    | 19750825 | AT 1973-790     | 19730130 |
| ES 411143   | A1   | 19751201 | ES 1973-411143  | 19730131 |
| PL 84511    | P    | 19760430 | PL 1973-160498  | 19730131 |
| DD 108522   | C    | 19740920 | DD 1973-168612  | 19730201 |
| GB 1380382  | A    | 19750115 | GB 1973-5087    | 19730201 |
| DD 114594   | C    | 19750812 | DD 1973-181401  | 19730201 |
| JP 48085524 | A2   | 19731113 | JP 1973-13024   | 19730202 |
| ZA 7300777  | A    | 19741030 | ZA 1973-777     | 19730202 |
| SU 485592   | D    | 19750925 | SU 1973-1878868 | 19730202 |
| HU 168659   | P    | 19760628 | HU 1973-ME1599  | 19730202 |
| CH 585694   | A    | 19770315 | CH 1973-1489    | 19730202 |
| FR 2197859  | A1   | 19740329 | FR 1973-35004   | 19731001 |

PRIORITY APPLN. INFO.: US 1972-223355 19720203  
 IT 35455-20-0P 35523-45-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)  
 Absolute stereochemistry. Rotation (-).



RN 35523-45-6 CAPLUS  
 CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)  
 Absolute stereochemistry.

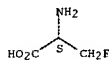


L24 ANSWER 327 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB 3-Fluoro-D-alanine (I) and D-cycloserine, a I-autoantagonist inhibitor, had synergistic bactericidal effects, especially against *Staphylococcus aureus*, *Proteus morganii*, *Serratia* species, and *Escherichia coli* in mice.  
 ACCESSION NUMBER: 1973:529095 CAPLUS  
 DOCUMENT NUMBER: 79:129095  
 TITLE: Bactericidal composition  
 INVENTOR(S): Kahan, Frederick M.  
 PATENT ASSIGNEE(S): Merck and Co., Inc.  
 SOURCE: Ger. Offen., 14 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| DE 2262787             | A1   | 19730809 | DE 1972-2262787 | 19721221 |
| DE 2262787             | C2   | 19820923 |                 |          |
| NL 7300636             | A    | 19730807 | NL 1973-636     | 19730116 |
| NL 177183              | B    | 19850318 |                 |          |
| NL 177183              | C    | 19850816 |                 |          |
| AU 7351368             | A1   | 19740725 | AU 1973-51368   | 19730123 |
| CA 1024448             | A1   | 19780117 | CA 1973-161913  | 19730124 |
| GB 1421023             | A    | 19760114 | GB 1973-4426    | 19730129 |
| BE 794913              | A1   | 19730802 | BE 1973-127197  | 19730202 |
| FR 2181703             | A1   | 19731207 | FR 1973-3668    | 19730202 |
| ZA 7300761             | A    | 19740925 | ZA 1973-761     | 19730202 |
| PRIORITY APPLN. INFO.: |      |          | US 1972-223360  | 19720203 |
|                        |      |          | US 1972-314878  | 19721213 |

IT 35455-20-0  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (bactericide, cycloserine and)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



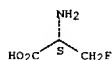
L24 ANSWER 328 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Bactericides 3-fluoro-D-alanine (I), and D-FCH2CD(NH2)CO2H (II), were prepared from FCH2COCO2H (III). Thus, III reacted with D-PhCHMeNH2 at 0° to give D-FCH2C(:NCHMePh)CO2H, which reacted with R or D over Pd/C to give, after hydrogenolytic cleavage of the methylbenzyl group, I or II, resp. I was also prepared by treatment of III Na salt with pig kidney D-amino acid oxidase in the presence of (NH4)2SO4 and D-proline under N at pH 8.5.

ACCESSION NUMBER: 1973:515888 CAPLUS  
 DOCUMENT NUMBER: 79:115888  
 TITLE: 3-fluoro-D-alanine  
 INVENTOR(S): Reinhold, Donald F.  
 PATENT ASSIGNEE(S): Merck and Co., Inc.  
 SOURCE: Ger. Offen., 7 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| DE 2305256             | A1   | 19730809 | DE 1973-2305256 | 19730202 |
| NL 7300577             | A    | 19730807 | NL 1973-577     | 19730115 |
| CS 178418              | P    | 19770915 | CS 1973-478     | 19730122 |
| AU 7351369             | A1   | 19740725 | AU 1973-51369   | 19730123 |
| CA 1001652             | A1   | 19761214 | CA 1973-161915  | 19730124 |
| AT 324294              | B    | 19750825 | AT 1973-790     | 19730130 |
| ES 411143              | A1   | 19751201 | ES 1973-411143  | 19730131 |
| PL 84511               | P    | 19760430 | PL 1973-160498  | 19730131 |
| DD 108522              | C    | 19740920 | DD 1973-168612  | 19730201 |
| GB 1380382             | A    | 19750115 | GB 1973-5087    | 19730201 |
| OD 114594              | C    | 19750812 | DD 1973-181401  | 19730201 |
| JP 48085524            | A2   | 19731113 | JP 1973-13024   | 19730202 |
| ZA 7300777             | A    | 19741030 | ZA 1973-777     | 19730202 |
| SU 485592              | D    | 19750925 | SU 1973-1878868 | 19730202 |
| HU 168659              | P    | 19760628 | HU 1973-ME1599  | 19730202 |
| CH 585694              | A    | 19770315 | CH 1973-1489    | 19730202 |
| FR 2197859             | A1   | 19740329 | FR 1973-35004   | 19731001 |
| PRIORITY APPLN. INFO.: |      |          | US 1972-223355  | 19720203 |

IT 35455-20-0P 35523-45-6P  
 RL: SPN (synthetic preparation); PREP (Preparation) (preparation of)  
 RN 35455-20-0 CAPLUS  
 CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 35523-45-6 CAPLUS  
 CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

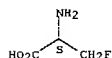
Absolute stereochemistry.

L24 ANSWER 329 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
AB Antibacterial 3-fluoro-D-alanine (D-I), more active than its L-isomer (L-I), was separated continuously (optionally as salt, e.g., benzenesulfonate) by supersatg. an aqueous solution of DL-I at .apprx.30°, inoculating with L-I at .apprx.25°, crystallizing L-I and inoculating the mother liquor with D-I to give crystalline D-I. The mother liquor was recycled. L-I was racemized via its acetyl derivative and recycled.  
ACCESSION NUMBER: 1973:515887 CAPLUS  
DOCUMENT NUMBER: 79:115887  
TITLE: Separation of antibacterial 3-fluoro-D-alanine  
INVENTOR(S): Reinhold, Donald F.  
PATENT ASSIGNEE(S): Merck and Co., Inc.  
SOURCE: Ger. Offen., 10 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| DE 2305187  | A1   | 19730809 | DE 1973-2305187 | 19730202 |
| HU 168658   | P    | 19760628 | HU 1972-ME1597  | 19720202 |
| NL 7300576  | A    | 19730807 | NL 1973-576     | 19730115 |
| CS 174867   | P    | 19770429 | CS 1973-479     | 19730122 |
| AU 7351371  | A1   | 19740725 | AU 1973-51371   | 19730123 |
| CA 1001656  | A1   | 19761214 | CA 1973-161902  | 19730124 |
| GB 1386044  | A    | 19750305 | GB 1973-4428    | 19730129 |
| AT 7300791  | A    | 19750815 | AT 1973-791     | 19730130 |
| AT 329529   | B    | 19760510 |                 |          |
| DD 105210   | C    | 19740412 | DD 1973-168608  | 19730201 |
| PL 100022   | P    | 19780831 | PL 1973-160524  | 19730201 |
| FR 2170181  | A1   | 19730914 | FR 1973-3667    | 19730202 |
| JP 48085523 | A2   | 19731113 | JP 1973-13023   | 19730202 |
| ZA 7300760  | A    | 19740925 | ZA 1973-760     | 19730202 |
| CH 591407   | A    | 19770915 | CH 1973-1490    | 19730202 |
|             |      |          | US 1972-223357  | 19720203 |

PRIORITY APPLN. INFO.:  
IT 35455-20-0P 35455-21-1P  
RL: PREP (Preparation)  
(manufacture of, by resolution through crystallization)  
RN 35455-20-0 CAPLUS  
CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

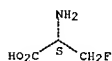


RN 35455-21-1 CAPLUS  
CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

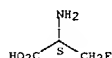
L24 ANSWER 330 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
AB A highly active antibacterial agent, which is active against gram-neg. and pos. bacteria, was prepared by C-fluorination of a key component of the bacterial cell wall, D-alanine [338-69-2]. Thus, 3-fluoro-D-alanine [35455-20-0] at concns. of 6-100 µg/ml inhibited the growth of Escherichia coli. D-alanine at 6-100 µg/ml reversed the inhibitory effect of 3-fluoro-D-alanine at 25 µg/ml. The ED50 values of 3-fluoro-D-alanine for Streptococcus pyogenes and Diplococcus pneumoniae in mice were 1.1 and 5 mg/kg, resp. Mice survived a single, oral dose of 2 g/kg.  
ACCESSION NUMBER: 1973:474171 CAPLUS  
DOCUMENT NUMBER: 79:74171  
TITLE: New antibacterial agent via photofluorination of a bacterial cell wall constituent  
AUTHOR(S): Kollonitsch, J.; Barash, L.; Kahan, F. M.; Kropp, H.  
CORPORATE SOURCE: Merck Sharp and Dohme Res. Lab., Rahway, NJ, USA  
SOURCE: Nature (London, United Kingdom) (1973), 243(5406), 346-7  
CODEN: NATUAS; ISSN: 0028-0836  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 35455-20-0  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (bactericidal activity of)  
RN 35455-20-0 CAPLUS  
CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L24 ANSWER 329 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
  
IT 42717-00-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 42717-00-0 CAPLUS  
CN D-Alanine, 3-fluoro-, benzenesulfonate (9CI) (CA INDEX NAME)  
CM 1  
CRN 35455-20-0  
CMF C3 H6 F N O2

Absolute stereochemistry. Rotation (-).



CM 2  
CRN 98-11-3  
CMF C6 H6 O3 S



L24 ANSWER 331 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
AB D-FCH2C(NH2)CO2H (D-I), D-FCH2C(NH2)CO2H (II), and D-FCH2C(NH2)CO2H, useful as bactericides, were prepared either by resolution of DL-I or by syntheses. Thus, DL-I was N-protected by reaction with PhCH2O2CCl, then the salt with L-tyrosine hydrazide was formed, fractionally crystallized, and cleaved by treatment with dilute HCl, and the N-protective group cleaved off by hydrogenation to give D-I. Starting materials for the synthesis of D-I were FCH2C(NH2)CO2H, D-(+)-PhCHMeNH2 and FCH2CHO or FCH2COCO2H, and others. Treatment of the intermediate D-FCH2C(NHCHMePh)CO2H with D, followed by hydrogenolysis, gave II.  
ACCESSION NUMBER: 1973:72586 CAPLUS  
DOCUMENT NUMBER: 78:72586  
TITLE: 3-Fluoro-D-alanine and deuterio derivatives  
INVENTOR(S): Kollonitsch, Janos  
PATENT ASSIGNEE(S): Merck and Co., Inc.  
SOURCE: Ger. Offen., 24 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 6  
PATENT INFORMATION:

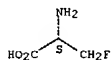
| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| DE 2229245 | A    | 19721221 | DE 1972-2229245 | 19720615 |
| NL 7207606 | A    | 19721220 | NL 1972-7606    | 19720605 |
| FI 57745   | B    | 19800630 | FI 1972-1587    | 19720606 |
| FI 57745   | C    | 19801010 |                 |          |
| CS 189580  | P    | 19790430 | CS 1972-4076    | 19720612 |
| DD 106364  | C    | 19740612 | DD 1972-163666  | 19720613 |
| DD 108976  | C    | 19741012 | DD 1972-175715  | 19720613 |
| GB 1389858 | A    | 19750409 | GB 1972-27621   | 19720613 |
| GB 1389859 | A    | 19750409 | GB 1974-13200   | 19720613 |
| CA 994800  | A1   | 19760810 | CA 1972-144614  | 19720613 |
| AT 7205115 | A    | 19760415 | AT 1972-5115    | 19720614 |
| AT 333717  | B    | 19761210 |                 |          |
| FR 2142474 | A5   | 19730126 | FR 1972-21616   | 19720615 |
| PL 90080   | P    | 19761231 | PL 1972-156081  | 19720615 |
| CH 584186  | A    | 19770131 | CH 1972-8945    | 19720615 |
| ES 403932  | A1   | 19751116 | ES 1972-403932  | 19720616 |
| CA 968368  | A2   | 19750527 | CA 1974-205439  | 19740723 |
| CA 994360  | A2   | 19760803 | CA 1974-210939  | 19741008 |
| ES 431083  | A1   | 19770116 | ES 1974-431083  | 19741016 |
| AT 7408827 | A    | 19760315 | AT 1974-8827    | 19741104 |
| AT 333246  | B    | 19761110 |                 |          |
| AT 7502890 | A    | 19760815 | AT 1975-2890    | 19750416 |
| AT 335992  | B    | 19770412 |                 |          |

PRIORITY APPLN. INFO.:  
US 1971-154695 19710618  
US 1972-223354 19720203  
US 1970-60645 19700803  
CA 1971-118803 19710721  
CA 1972-144614 19720613  
AT 1972-5115 19720614

IT 35455-20-0P 35523-45-6P 39621-34-6P  
39621-34-6P 39741-57-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

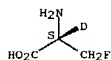
L24 ANSWER 331 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
RN 35455-20-0 CAPLUS  
CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



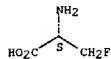
RN 35523-45-6 CAPLUS  
CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 39621-34-6 CAPLUS  
CN D-Alanine, 3-fluoro-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

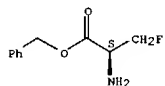
RN 39621-36-8 CAPLUS  
CN D-Alanine, 3-fluoro-, phenylmethyl ester, [R-(R\*,R\*)]-2,3-bis(benzoyloxy)butanedioate (9CI) (CA INDEX NAME)

CM 1

CRN 46344-20-1

CMF C10 H12 F N O2

Absolute stereochemistry.



CM 2

L24 ANSWER 332 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
AB Fluoroxyltrifluoromethane [373-91-1] is used in uv light to convert benzene to fluorobenzene [462-06-6], toluene to a mixture of 2-fluorotoluene and PhCH2F, cyclohexane to fluorocyclohexane, EtNH2 to FCH2CH2NH2, HCF2CH2NH2, or CF3CH2NH2, polycaprolactam (I) [25038-54-4], polyethylene [9002-88-4], polystyrene [9003-53-6], and a siloxane to fluorinated polymers containing 17.3, 3.1, 2.45, and 34% F, resp., AcOH to FCH2CO2H, 4-(PhCH2CH2)C6H4CMe2NH2 to 4-(PhCF2CF2)C6H4CMe2NH2, etc. Fluoroxypentafluorosulfur [15179-32-5] and fluoroxypentafluoroethane [3848-94-0] are used to prepare PhF from benzene and fluorocyclohexane from cyclohexane, resp. Thus, 1.13 g I in 40 ml HF is treated with 3.6 g CF3OF

under uv light at -78.deg. to prepare fluorinated I containing 17.3% F.

ACCESSION NUMBER: 1972:154488 CAPLUS

DOCUMENT NUMBER: 76:154488

TITLE: Fluorination of organic compounds in the presence of a

free radical-producing initiator

INVENTOR(S): Kollonitsch, Janos

PATENT ASSIGNEE(S): Merck and Co., Inc.

SOURCE: Ger. Offen., 40 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

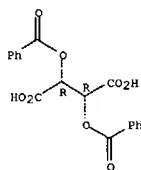
FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE           | APPLICATION NO. | DATE     |
|------------------------|------|----------------|-----------------|----------|
| DE 2136008             | A    | 19720210       | DE 1971-2136008 | 19710719 |
| DE 2136008             | B2   | 19760212       |                 |          |
| DE 2136008             | C3   | 19761014       |                 |          |
| NL 7109946             | A    | 19720207       | NL 1971-9946    | 19710719 |
| NL 173388              | B    | 19830816       |                 |          |
| NL 173388              | C    | 19840116       |                 |          |
| AU 7131463             | A1   | 19730125       | AU 1971-31463   | 19710720 |
| CA 967982              | A1   | 19750520       | CA 1971-118803  | 19710721 |
| IT 980052              | A    | 19750410       | IT 1971-51835   | 19710722 |
| GB 1353519             | A    | 19740522       | GB 1971-34887   | 19710726 |
| FR 2101198             | A5   | 19720331       | FR 1971-28394   | 19710803 |
| FR 2101198             | B1   | 19750801       |                 |          |
| FR 2103901             | A5   | 19720414       | FR 1971-28393   | 19710803 |
| ZA 7105185             | A    | 19730328       | ZA 1971-5185    | 19710803 |
| HU 163751              | F    | 19731027       | HU 1971-ME1404  | 19710803 |
| HU 166452              | F    | 19750328       | HU 1971-ME1550  | 19710803 |
| CH 575354              | A    | 19760514       | CH 1971-11408   | 19710803 |
| JP 35044048            | B4   | 19801110       | JP 1971-58028   | 19710803 |
| FR 2142474             | A5   | 19730126       | FR 1972-21616   | 19720615 |
| CA 968368              | A2   | 19750527       | CA 1974-205439  | 19740723 |
| CA 994360              | A2   | 19760803       | CA 1974-210939  | 19741008 |
| AT 7408827             | A    | 19760315       | AT 1974-8827    | 19741104 |
| AT 333246              | B    | 19761110       |                 |          |
| PRIORITY APPLN. INFO.: |      |                |                 |          |
|                        |      | US 1970-60645  |                 | 19700803 |
|                        |      | US 1971-194595 |                 | 19710618 |
|                        |      | CA 1971-118803 |                 | 19710721 |
|                        |      | US 1972-223354 |                 | 19720203 |

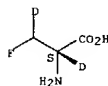
L24 ANSWER 331 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
CRN 2743-38-6  
CMF C18 H14 O8

Absolute stereochemistry.



RN 39741-57-6 CAPLUS  
CN D-Alanine-2,3-d2, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

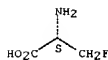


L24 ANSWER 332 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
CA 1972-144614  
AT 1972-5115  
19720613  
19720614

IT 35455-20-0P  
RL: PREP (Preparation)  
(preparation of)

RN 35455-20-0 CAPLUS  
CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

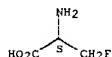


L24 ANSWER 333 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
AB The title compds. and 3-fluoro-D-alanine-2-ZH were prepared by reaction of the alanines with F3COF in HF in the presence of uv light and used as antibacterial substances. Thus, F3COF was passed into (-)-D-alanine in liquid HF with uv irradiation to give 41t 3-fluoro-D-alanine.  
ACCESSION NUMBER: 1972:100053 CAPLUS  
DOCUMENT NUMBER: 76:100053  
TITLE: Antibacterial 3-fluoro-L- and -D-alanine  
INVENTOR(S): Kollonitsch, Janos; Kahan, Frederick M.  
PATENT ASSIGNEE(S): Merck and Co., Inc.  
SOURCE: Ger. Offen., 17 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 6  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| DE 2136067             | A    | 19720210 | DE 1971-2136067 | 19710719 |
| DE 2136067             | B2   | 19800117 |                 |          |
| DE 2136067             | C3   | 19800911 |                 |          |
| NL 7109947             | A    | 19720207 | NL 1971-9947    | 19710719 |
| NL 174248              | B    | 19831216 |                 |          |
| NL 174248              | C    | 19840516 |                 |          |
| AU 7131464             | A1   | 19730125 | AU 1971-31464   | 19710720 |
| CA 956646              | A1   | 19741022 | CA 1971-118804  | 19710721 |
| GB 1367674             | A    | 19740918 | GB 1971-34886   | 19710726 |
| BE 770888              | A1   | 19720203 | BE 1971-106700  | 19710803 |
| FR 2101198             | A5   | 19720331 | FR 1971-28394   | 19710803 |
| FR 2101198             | B1   | 19750801 |                 |          |
| FR 2103901             | A5   | 19720414 | FR 1971-28393   | 19710803 |
| ZA 7105185             | A    | 19730328 | ZA 1971-5185    | 19710803 |
| HU 166452              | P    | 19750328 | HU 1971-ME1550  | 19710803 |
| IL 37429               | A1   | 19750522 | IL 1971-37429   | 19710803 |
| CH 563961              | A    | 19750715 | CH 1971-11407   | 19710803 |
| JP 56005217            | B4   | 19810204 | JP 1971-58027   | 19710803 |
| CA 968368              | A2   | 19750527 | CA 1974-205439  | 19740723 |
| PRIORITY APPLN. INFO.: |      |          | US 1970-60645   | 19700803 |
|                        |      |          | US 1971-149814  | 19710603 |
|                        |      |          | US 1971-154695  | 19710618 |
|                        |      |          | CA 1971-118803  | 19710721 |

IT 35455-20-0P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation) (manufacture and antibacterial activity of)  
RN 35455-20-0 CAPLUS  
CN D-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

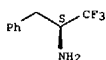


L24 ANSWER 334 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN  
AB The area of the enzyme which complexes the benzene ring of L-phenylalanine represents the primary site of recognition and one of the two major binding loci. This region is best described as a hydrophobic pocket with a stringent steric requirement for the phenyl ring of the substrate: substituents on the benzene ring which are larger than H invariably lead to a loss of substrate activity and binding energy. The other major binding locus is that which complexes the protonated amino group of L-phenylalanine and related analogs, and is probably best represented as an anionic group of the enzyme. This region also has rigid steric requirements for binding and substrate activity and is intolerant of substituents on the amine which are larger than H. The stereospecificity of the enzyme is exact with regard to substrate and binding properties

and appears to be governed by steric constraints in the region of the binding site which is occupied by the  $\alpha$  hydrogen of L-phenylalanine. The presence of the  $\alpha$ -carboxyl group is not necessary for optimal binding.

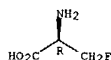
ACCESSION NUMBER: 1972:22491 CAPLUS  
DOCUMENT NUMBER: 76:22491  
TITLE: Phenylalanyl transfer ribonucleic acid synthetase from Escherichia coli. Analysis of the phenylalanine binding site  
AUTHOR(S): Santi, Daniel V.; Danenberg, Peter V.  
CORPORATE SOURCE: Dep. Chem., Univ. California, Santa Barbara, CA, USA  
SOURCE: Biochemistry (1971), 10(25), 4813-20  
CODEN: BICHAW; ISSN: 0006-2960  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 35373-60-5  
RL: BIOL (Biological study) (phenylalanyl-transfer ribonucleate synthetase inhibition by, kinetics of)  
RN 35373-60-5 CAPLUS  
CN Benzeneethanamine,  $\alpha$ -(trifluoromethyl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



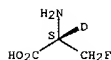
L24 ANSWER 333 OF 334 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
IT 35455-21-1P 35523-45-6P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 35455-21-1 CAPLUS  
CN L-Alanine, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 35523-45-6 CAPLUS  
CN D-Alanine-2-d, 3-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

168.64

1053.12

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-24.26

-81.09

STN INTERNATIONAL LOGOFF AT 17:17:31 ON 05 MAY 2004

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal204bxd

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 JAN 27 Source of Registration (SR) information in REGISTRY updated  
and searchable  
NEWS 4 JAN 27 A new search aid, the Company Name Thesaurus, available in  
CA/CAPLUS  
NEWS 5 FEB 05 German (DE) application and patent publication number format  
changes  
NEWS 6 MAR 03 MEDLINE and LMedline reloaded  
NEWS 7 MAR 03 MEDLINE file segment of TOXCENTER reloaded  
NEWS 8 MAR 03 FRANCEPAT now available on STN  
NEWS 9 MAR 29 Pharmaceutical Substances (PS) now available on STN  
NEWS 10 MAR 29 WPIFV now available on STN  
NEWS 11 MAR 29 No connect hour charges in WPIFV until May 1, 2004  
NEWS 12 MAR 29 New monthly current-awareness alert (SDI) frequency in RAPRA  
NEWS 13 APR 26 PROMT: New display field available  
NEWS 14 APR 26 IFIPAT/IFIUDB/IFICDB: New super search and display field  
available  
NEWS 15 APR 26 LITAlert now available on STN  
NEWS 16 APR 27 NLDB: New search and display fields available  
  
NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT  
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that  
specific topic.

All use of STN is subject to the provisions of the STN Customer  
agreement. Please note that this agreement limits use to scientific  
research. Use for software development or design or implementation  
of commercial gateways or other similar uses is prohibited and may  
result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 18:11:36 ON 05 MAY 2004

=> fil reg

COST IN U.S. DOLLARS

SINCE FILE  
ENTRY

TOTAL  
SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 18:11:43 ON 05 MAY 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7  
DICTIONARY FILE UPDATES: 4 MAY 2004 HIGHEST RN 679784-15-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

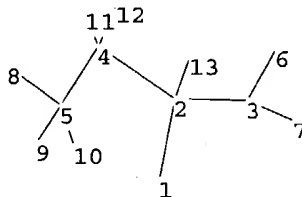
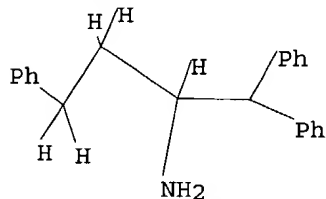
Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\Program Files\Stnexp\Queries\09857465.str



chain nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13

chain bonds :

1-2 2-3 2-4 2-13 3-6 3-7 4-5 4-11 4-12 5-8 5-9 5-10

exact/norm bonds :

1-2

exact bonds :

2-3 2-4 2-13 3-6 3-7 4-5 4-11 4-12 5-8 5-9 5-10

Match level :

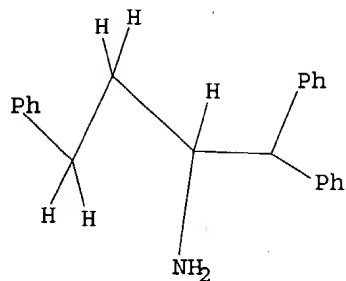
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS 11:CLASS 12:CLASS 13:CLASS

L1 STRUCTURE UPLOADED

=> d query

L1 STR





Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 18:11:59 FILE 'REGISTRY'  
 SAMPLE SCREEN SEARCH COMPLETED - 36 TO ITERATE

100.0% PROCESSED 36 ITERATIONS 0 ANSWERS  
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
 BATCH \*\*COMPLETE\*\*  
 PROJECTED ITERATIONS: 360 TO 1080  
 PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 18:12:03 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 970 TO ITERATE

100.0% PROCESSED 970 ITERATIONS 0 ANSWERS  
 SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=> logoff y

COST IN U.S. DOLLARS

| SINCE FILE | TOTAL   |
|------------|---------|
| ENTRY      | SESSION |
| 155.42     | 155.63  |

FULL ESTIMATED COST

STN INTERNATIONAL LOGOFF AT 18:12:09 ON 05 MAY 2004